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SOCIAL INTERACTION AND DEVELOPMENT OF PRESCHOOL DELAYED AND NONDELAYED CHILDREN IN AN INTEGRATED CLASSROOM

J.M. Gardner

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Social Interaction and Development of Preschool Delayed and Nondelayed Children in an Integrated Classroom

A Pilot Study

JoAnne Marie Gardner October 1982

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CHAPTER I

PROBLEM

The right of all children to be educated in the least restrictive environment is the backbone issue in the mainstreaming controversy. In the past this educational placement has occurred primarily with elementary and high school classes. However, recent years have seen the immersion of preschool handicapped children into shared classrooms with their nonhandicapped peers. According to Kando (1977) the importance of having preschool handicapped and nonhandicapped children interact is vital for primary socialization. It is this socialization that produces cognitive (Devoney, Guralnick, and Rubin, 1974), emotional, problem-solving, moral (Hartup, 1978), and language development (Ispa and Matz, 1978). Whitman et al. (1970) emphasized the importance of social interaction when they concluded:

> "One of the most striking behavioral deficiencies that distinguishes the severely retarded child from the higher functioning retarded or normal child is the absence of social responses. Because many skills and discriminations are learned in a context of interpersonal reinforcement, social interaction is a critical prerequisite for much of a child's behavioral development. Conversely, the absence of a social interaction probably insures that development will be retarded." (p. 133).

Since peer behavior is stimulus variable "of utmost developmental significance", it is important that social interaction be encouraged (Apolloni et al., 1975, p. 4). Hopefully by interacting with their peers, children will develop friendships which will serve to enhance personal growth of both the handicapped and nonhandicapped child.

Background of Problem

The issue of whether to place mentally handicapped youngsters into the regular school system remains controversial. Often the question revolves around the degree of integration contemplated. Specifically, handicapped children can be situated in special classes within the public school, can attend nonacademic classes with their nonhandicapped peers, or can share regular classroom placement subject areas (with or without special assistance from a resource room teacher). It is however only the latter, and most extensive type of integration, that is given the label "mainstreaming" by Fredericks, Baldwin, Grove, Moore, Riggs, and Lyons (1978). Unfortunately authors differ in their definition of "mainstreaming" and "integration". In fact they are often used interchangeably in the literature. However, for the purpose of this study Hoben's (1980) interpretation clarifies the intent of this study more accurately. While she defines "mainstreaming" as educating handicapped children in regular classes, she sees this term as being dicotomous. One branch is merely the maintenance of special needs children in regular classes while the second branch leads to successful mainstreaming which she defines as integration. she believes "educating handicapped students in the mainstream creates opportunity for integration, but it offers little assurance that integration will occur" (Hoben, 1980, pp. 100).

The enthusiasm for mainstreaming and ideally integration, according to MacMillan, Jones, and Meyers (1976) possibly "stems from the belief that it is morally right" (p. 9). Bricker (1978) elaborates on this point by posing three arguments in support of integration, embracing: "legal-legislative", "psychological-educational", and "social-ethical" concerns.

Bricker's (1978) legal-legislative argument includes:

> (1) "the right of all handicapped children to a free public education (2) the right of all handicapped children to educational placement in the least restrictive yet productive educational setting, and (3) a guarantee of due process for parents concerning educational decisions relevant to their children through the establishment of specific review procedures." (p. 11).

Bricker's (1978) second argument ("Psychological-Educational") leans towards creating a demanding environment for thd handicapped child; thus allowing the child's behavior repertoire to continue to develop. Another issue brought forth by Lawrence and Winshel (1973), which relates to the "psychological-educational" contention, is the development of self-concept. The above authors concluded that

> "segregated placement patterns are not ordinarily conducive to overall positive concepts of self and cannot be justified on that basis. This finding tends to further support the current trend in the desegregation of retarded individuals." (p. 316)

These authors add that studies on self-concept with severely and profoundly, mentally handicapped children are not only rare, but valid and standardization of measurement are questionable in those studies that have been conducted. Also there are only a few nonverbal measures for severely and profoundly, mentally handicapped, preschool children.

While Lawrence and Winshell (1973) believe self-concept suffers in segregated placements, Johnson (1962) stated that many believe that handicapped children adjust better in a segregated placement. He is quick to add, however, that findings supporting such statements are questionable mainly because such children are in protected environments. While it is important to ascertain a healthy affective state for all children, it is also crucial that schools educate, i.e., allow children to achieve to their maximum potential. These integrated, preschool, handicapped children tend to have superior academic achievement when placed in a regular class (Johnson, 1962 and Greenwood, Walker and Hops, 1977). This intellectual development, according to Ispa and Matz (1978), "occurs through active transactions with adults, peers, real materials, and events." (p. 167).

Active transaction is the idea behand Bricker's (1978) final argument for integration. Her "social-ethical argument is comprised of the following reasoned claims. First, she believes that by allowing the nonhandicapped to have positive experiences with the handicapped, societal attitudes will shift to positively favour the handicapped. Guralnick (1976) and Snyder et al. (1977) also stress this point. Secondly, reinforcement from nonhandicapped peers will have a positive affect on the handicapped. Finally, more sufficient allocation of educational resources for all children will result. Many other authors (Fredericks et al., 1978; Hartup, 1978; Johnson, 1962; and

McCandless and Marshall, 1957) have commented on the possible benefits of allowing the handicapped the opportunity to interact with their nonhandicapped peers. Hartup (1978) elaborates on this belief by stating:

> "without an opportunity to interact with other children, children have difficulty in learning effective communication skills, modulating aggressive feelings, accomodating to social demands for appropriate sexual behavior, and forming a coherent set of moral values." (p. 28).

Behavior is one area that needs normalizing if children are going to be accepted by peers. By allowing handicapped children to mix with normal children, Snyder et al. (1977) believes a reduction in stereotypic behavior will accur. Greenwood et al. (1977) and Norquist (1978) also believe that positive behavioral development will occur given the handicapped children have the opportunity to interact with their normal peers.

Also through integration social-affective growth, according to Barclay and Kehle (1979), occurs. Children given this opportunity can learn human relations skills that will allow them to function better in society. According to Bar-Tal (1976) the learning of prosocial behavior occurs through reinforcement, role playing, modeling and parenting relationships. He showed that children who have the chance to observe others behaving in an altruistic manner will elicit altruistic responses themselves. The benefits from social interaction are the backbone of all development. According to Kando (1977), primary socialization occurs throughout childhood, and it is through this process that children become part of society. Secondary socialization, states Kando (1977), involves "the consequent processes that induct already socialized individuals into new sectors of society - for example, a university, the army, a profession, marriage" (p. 175). If primary socialization has not occurred secondary socialization certainly will not.

By allowing nonhandicapped children and teachers to socialize with handicapped children benefit to all may result. Apolloni and Cooke (1978) state that this interaction provides nonhandicapped children with "opportunities to develop sensitive and well informed feelings of acceptance for human diversity" (p. 159). Guralnick (1976) also found that nonhandicapped children benefit as well if not better from attending an integrated program. He also discovered that teachers profit from observing groups with different learning processes.

While the potential benefits of mainstreaming have been discussed, disadvantages of mainstreaming have also been recorded in the literature. For example, Johnson (1962) found handicapped children placed in regular classes to be less accepted by their peers. Such ostracization was also seen to be a problem by Ispa and Matz (1978). Also, Goodman, Gottlieb and Harrison (1972) studied primary and elementary children and peer acceptance of them. Their two groups included a population of partially mainstreamed educable, mentally retarded (EMR) and certain segregated EMR classes. Both classes were contained within the same facility. They found that the mainstreamed EMR were rejected more than the segregated EMR. They also concluded that the normal children had a different set of standards for both groups with the mainstreamed group expected to conform to higher standards. Bricker (1978) adds that acceptance and rejection may be related to selection and placement of children. Gottlieb and Davis (1973) also studied the acceptance and rejection of EMR pupils in segregated and mainstreamed classes. They state that "the consistent failure of the non EMR children to select retarded children may reflect their perceived competence of EMR children more than their degree of liking or disliking" (p. 142).

While level of competence is one reason for ostracization, maladaptive behavior (Ispa and Matz, 1978) is seen as an alternate or additional explanation. Similarly, Kehoe et al. (1979) summarized that the rejection of EMR in classrooms is related to antisocial behavior while acceptance is related to cognitive skills. Likewise, while studying junior high school students acceptance of EMR adolescents who were partially integrated for nonacademic skills, Shearer (1974) found that rejection was based on deviant behavior not on academic achievement. Also Ispa and Matz (1978) noted that handicapped children often have disruptive behaviors that can require more teacher time and, according to Martin (1974), more teacher training.

There is also the belief that while the nonhandicapped provide positive behavioral modeling experiences for the handicapped, the handicapped in turn provide negative models for the nonhandicapped. However, Apolloni and Cooke (1978) discovered that nondelayed children with imitation training did imitate the delayed child, but the behavior imitated was not inappropriate. Thus they engaged in selective imitation.

In conclusion, the ostracization of the mentally handicapped is a crucial area to research more fully, for "in order for handicapped children to receive the benefits of integrated programming, they must interact routinely with nonhandicapped children" (Nordquist, 1978, p. 55). Also, if these children are being rejected in the regular class then they will not have the opportunity for socialization benefits to accrue.

Variables to Consider

If one assumes that handicapped children have to interact with their nonhandicapped peers before they can effectively function in a normal way within the cnmmunity, a number of variables must be considered when attempting to evaluate the effectiveness of these integrative programs. The following is a summary of some of the variables outlined in the literature.

Sex. Parten's (1933) study of thirty-four, nonhandicapped, preschool children showed 68% of two child groups were unisexual. "The tendency to form unisexual groups increased with age from 61.5 percent of the two year level to 79 percent at the age of four-and-a-half" (Parten, 1933, p. 138). Parten then calculated the five children with whom each child played with most frequently. She found 81% of the five, favorite playmates for girls were other girls; however, only 62% of the boys five, favorite playmates were other boys. Greenwood et al. (1977) concluded that males interact more than females. It was hoped that an equal number of boys and girls could be selected for this program; however this was not achieved because of the larger proportion of boys who applied.

Chronological Age. Parten's (1932) study of factors influencing preschool children's choice of playmates, he found that the age differed from 0 to 18 months for preschool playmates; however the medium age difference was less than 3 months. More specifically, the average difference for girls was 4.1 months and 3.5 months for boys.

Intelligence. Parten (1933) also found that IQ related to the child's choice of playmates. In her study of preschool children the child's choice of playmates was demonstrated to have an I.Q. range of from 2 to 40 I.Q. points with the mean difference for girls being 19.4 points and that for boys being 12.9 points. It should be noted that the range of I.Q. for all children in Parten's study was between 80 and 149. No moderately and severely retarded children were studied. Taking both chronological age and intelligence into consideration, the children were selected so the handicapped children were approximately 12 months older than the normal children, so their mental developments would be more similar.

Socioeconomic Status. Rubin, Maioni, and Hornung (1976) have investigated a yet another variable, namely socioeconomic status and showed it to be related to social interaction. They ascertained that lower class children engaged more in parallel play and less in associative and cooperative play (as defined by Parten, 1932) than their middle class conterparts. Several difficulties arise when interpreting socioeconomic status. For example, while Rubin et al. (1976) define their lower class children as coming from welfare recipient residences and middle class children as ensuing from professional homes (example, college professors), problems occur when considering the population from which the children in the present study were selected. Seven subjects lived in a university community setting where their parents by virtue of income could be considered members of the lower economic class but by virtue of their education could be considered of a higher social class. The other 4 children came from middle income homes.

Teacher. The teacher is in a position to facilitate interaction among the children. Whether or not the teacher sees this as her purpose and/or effectively carries this out is an additional factor worthy of investigation.

Purpose and Objectives

The purpose of this project was to serve as a pilot study which would attempt to evaluate the procedures (research and classroom) and instruments utility in answering the following objectives:

1) to determine the children's level of play;

2) to determine the quality of interaction among the preschoolers in this mainstreamed placement;

3) to determine if the handicapped children are being accepted, rejected, or considered as an anonymity by their nonhandicapped peers - the reverse relationship was also considered;

4) to determine which activities and instructional procedures facilitate interaction between the delayed and nondelayed children in the classroom; and

5) to investigate the changes in the children's abilities and skills and behaviors before and after the program. The behaviors considered include; cognitive, maladaptive, adaptive, receptive vocabulary, expressive vocabulary, motor and socialization.

In addition, the parents and teachers were questioned on their impressions of the program's effectiveness. The purpose of this was to provide the teachers with feedback as well as to develop an objective interview schedule from this data which can be used in the main study.

Definition of Terms

Mainstreaming. The education of handicapped children with their nonhandicapped peers.

Integration. Handicapped and nonhandicapped children interacting successfully within a mainstreamed placement.

The following are the levels of play first outlined by Parten (1932):

Unoccupied behavior. The child occupies him/herself by either glancing about the room or playing with his/her own body.

Onlooker. The child observes other children playing.

Solitary Independent Play. The child plays alone and independently with toys that are different from those used by the children within speaking distance and makes no effort to get close to the other children" (Parten, 1932; 250).

Parallel Activity. The child plays beside the other children and with toys that are like those the other children are playing with.

Associative Play. The child plays with other children in a common activity. Borrowing of toys and following one another usually occur in the interaction.

Cooperative play. "The child plays in a group that is organized for the purpose of making some material product, or of striving to obtain some competitive goal, or of dramatizing situations of adult and group life, or of playing formal games." (Parten, 1932; p. 251).

After piloting these categories with observations on the children in the program it became evident that two other categories should be included to further clarify the interactions. These include:

Teacher Directed. The teacher initiated or encouraged two or more children to interact by either verbally or physically bringing the children together or by directing an activity that drew the children to her (e.g. reading a story).

Conversation. The children were not playing but rather just conversing.

CHAPTER II

METHODOLOGY

In this section the school, integrated program, sample, research procedure, instrumentation and data analysis are discussed.

Setting Description

This study was conducted in the "integrated classroom" at the Bob Berwich Preschool situated on the University of British Columbia Campus in Vancouver, British Columbia. There are a total of 5 classrooms within the school, including the integrated class. It should be noted that for the purpose of this pilot project only the integrated classroom was investigated. All classrooms have at least two special education teachers and/or preschool supervisors who consult with the preschool resource personnel (i.e. program coordinator, psychologist, physiotherapist, speech therapist, behaviour therapist, volunteers, and students). The school itself has been built to encourage faculty, staff, students, and parents to observe the children, for each classroom is equipped with one-way windows, a sound system, and video equipment.

Philosophy of Preschool. "All children have the right to respect for their individuality and the right to learn and develop to the maximum of their potential."

Preschool Population. The school has a total capacity of 45 children ranging in age from 2 1/2 to 6 years of age. The special needs children are functioning within the borderline to severe developmental delayed range with many also having multiple handicaps.

Description of Integrated Program

The study was conducted on the only integrated program within the preschool. The two teachers and 11 students (4 delayed and 7 nondelayed) are mainstreamed within this preschool setting. Like most other schools the classrooms in this school are fairly independent with the teachers setting their major goals for their classroom as well as individual goals for their own students. The children from all the classrooms play together on the playground and share the same resource personnel.

Goals for the classroom. Both teachers in the integrated classroom agreed that their main goals were to enhance the children's social skills, group participation and independence.

Selection of Sample

The children were selected for this integrated program using the following criteria.

The handicapped childrn must:

1. be 4 years of age of September 1, 1981;
2. be functioning within the mild to moderate mentally delayed range;
3. display no severe maladaptive behaviour;
4. have the consent of their parents to attend their integrated class;
5. be planning to remain in the class for the duration of

the school year (September 1, 1981, to June 31, 1982);

6. have some receptive and expressive language, (example: vocalizes and/or gestures); and
7. be ambulatory (walks independently).

The nonhandicapped children must:

1. be 3 years of age as of September 1, 1981;
2. to be functioning within the average intelligence range;
3. have no major handicap;
4. display no severe maladaptive behaviour;
5. have the consent of their parents to attend the integrated class;
6. be planning to remain in the class for the duration of the school year; and
7. have average or above receptive and expressive language.

Selection Justification. According to Cooke et al. (1977) children prefer to interact with children of the same developmental status. In turn, Parten (1932) found that the preschooler's choice of playmates differed in age as much as 18 months. Taking these two studies into consideration it was decided to select developmentally delayed children who were approximately 12 months older than their nondelayed peers, in the hope that their mental developmental levels would be more similar, and at the same time staying within an acceptable chronological age range.

Likewise, it was decided to select children who have no severe maladaptive behavior which might deter other children from associating with them. Also, because interactions were to be observed it was thought that if children were nonambulatory it would greatly hinder their ability to interact with their nondisabled peers on the playground and in the classroom; thus all the children were ambulatory. Because communication is important in the interactive process all children selected had at least basic receptive and expressive language (i.e. gestures and vocalization).

Selection procedure: Parents with special needs children meeting the selection criteria and already attending the preschool were notified by mail asking if they were interested in having their child in an integrated setting. The nonhandicapped children were elicited by putting up a notice in the laundry rooms of the University Family Housing Complex. An information letter (Appendix A) was sent to all parents who applied to have their child attend this program.

Sample

In total, 7 handicapped and 14 nonhandicapped children applied for the program. Of tha 4 handicapped boys who applied, 3 were selected. The boy denied placement was thought by his teachers to be too aggressive for this classroom. Of the 3 handicapped girls only one parent felt the program was suited to their daughter's needs. The other two families felt their daughters wouldn't get the amount of one to one assistance they would in a segregated placement. Of the 9 nonhandicapped boys seeking admission to the program, 5 were selected. Of the four not selected, one child was found to be functioning within the superior intelligence range. His parents felt that a more cognitively oriented program might be better suited to his needs. Two other boys not selected were identical twins who argued constantly. The fourth child's parents decided to place their son in a program closer to their home. In turn, two of the five nonhandicapped girls considering placement were accepted. One mother of twin girls decided on another placement for her daughters and the remaining girl was found to be functioning within the superior intelligence range. Her parents found her a more cognitively oriented program.

In summary there were 4 handicapped children (3 boys and 1 girl) and 7 nonhandicapped children (5 boys and 2 girls) in the sample.

Instruments

Both direct and indirect, standardized and nonstandardized, published and nonpublished measures were used in the collection of information on the children's development and the program's effectiveness. In this section the objectives of the study are discussed in terms of the measures used. Table 1 consists of the instruments used and the times at which the specific data was collected.

Table 1

Instruments: When Administered
and by whom

Variable	Instrument	Administer/informant	When	Administered	
			For Selection	Preassessment	Postassessmen
Demographic	Background Information	investigator/patient	X		
Interactions	Observation Scale	investigator/child(I)*		X	X
	Sociometric Scale	investigator/child(D)**		X	X
	Teacher Ranking Scale	teacher/child(I)		X	X
Interaction Activities	Anecdotal records	teacher		continuous	-------------------
	Interview teacher	investigator/teacher(D)			X
Cognitive Ability	Stanford Binet	investigator/child(D)	X		
Adaptive Behavior	Vineland	investigative/parent(D)		X	nc***
Classroom Social competence	Kohn Social competence	teacher/child(I)		X	nc
Child's Attainment	Preschool Attainment record	teacher/child(I)		nc	nc
Receptive Vocabulary	PPVT-R	investigator/child(D)		X	X
Expressive Vocabulary	EOWVT	investigative/child(D)		X	X
Visual Motor Integration	VMI	investigator/child(D)		X	X
Child's Characteristics	Pupil Rating Scale	teacher/child(I)		X	X
Classroom Behavior	Kohn Problem Checklist	teacher/child(I)		X	X
Child's Attendance		teacher/child(I)		continuous	-------------------
Program Evaluation	Parent	investigative/parent(D)		X	X
Program Evaluation	Teacher	investigative/teacher(D)		X	X

*(I) = indirect measure
**(D) = direct measure
***nc = not completed

Demographic Data. The parents of the children were interviewed in the Fall (preassessment) to determine the basic family structure and background information on the children. This interview schedule can be found in Appendix B.

Interaction. Two objectives of this study were to evaluate the level of play and quality of interaction between handicapped and nonhandicapped preschool children and their peers. The level of play was evaluated in terms of Parten's (1932) six categories. These play categories include: unoccupied, solitary, onlooker, parallel, associative, and cooperative play. They have been defined in the 'Definition of Terms' section of the report. Two additional categories "Teacher Directed" and "Conversational" were added. Along with level of play, the quality of interaction was assessed in terms of the number of antisocial and social responses the children elicited. An example of the 'observation checklist' can be found in Appendix B.

The observations were conducted in the Fall (October) and at the end of the term (May). The investigator observed the children during their "free-play time" (9:30 a.m. to 10:00 a.m.) when the children were allowed to engage in activities of their choice as well as play with the classmate(s) of their choice. Each child was randomly observed for 15 seconds each observation day over a period of twenty days. If a child was away on an observation day he/she was observed twice the next day he/she attended school. If a child was away more than 3 days in a row he/she was observed in the 5th week which was used to observe the children who had been away during the regular observation period.

Another question related to the issue of interaction was to determine if the handicapped children were accepted, rejected or considered as an anonymity by their nonhandicapped peers. The reverse relationship was also investigated. The lack of acceptance of handicapped children by their nonhandicapped peers is in critical need of investigation, for, as previously stated, "in order for handicapped children to receive the benefits of integrated programming, they must interact routinely with nonhandicapped children" (Nordquist, 1978, p. 35). Three methods were used. First, each child individually completed a picture sociometric scale requiring him/her to point to the picture of the children he/she liked and disliked. A second method involved having the teachers complete a 5 point scale on which they were to decide if the child was "Popular" an "Isolete" or "Unpopular". Third, each child was observed for 20 times in both the fall and spring terms and the names of the children he/she was playing with were recorded. Appendix B contains an example of each of these 3 instruments. The following section discusses the justification for using these three measures of interaction.

Measures of Interaction

Greenwood, Walker, and Hops (1977) present three ways of measuring interactive behavior, including: sociometric scales, teacher judgements, and behavior observations.

Sociometric Method. While sociometry is the study of "dynamic interrelationships of individuals within a social group" the sociometric method is a technique used for determining peer acceptance and status within a social group (Drever, J., 1975, p. 274).

A sociometric study conducted by Iano, Ayers, Heller, McGettiga, and Walker (1974) to ascertain the sociometric status of educable mentally retarded students who had been placed in regular classes with resource room services made available. The researchers asked the 40 elementary EMR and 606 regular class students the following six questions:

"1. Who are the children in your class that you like the best?

"2. If you were to have your seats changed, who would you like to have sit in the seat next to you?

"3. Who are the children in your class that you like to play with the best?

"4. If you were to have your seats changed, who wouldn't you like to have sit next to you?

"5. Who are the children in your class that you do not like to play with?

"6. Who are the children in your class that you do not like? (p. 268).

The authors accepted the first three names only for each question. After tallying the names the authors received an acceptance and rejection score for each child. They found that the EMR having supportive services were no more accepted than EMR in previous studies with no supportive services. However, they found an overlap between acceptance and rejection scores of mentally delayed and nondelayed students. Thus, they concluded that mental retardation is not the only determiner for rejection. Unfortunately no reliability was given for their sociometric measure.

While eliciting verbal responses to sociometric questions proved useful for elementary level students, verbal responses elicited from preschool handicapped children may pose more of a problem. A more appropriate sociometric method for this level of children would be Moore and Updegraff's (1964) "Picture Board Method". The child was required first to point to the picture of the classmate they liked. After receiving this first "Spontaneous Positive" choice the children were asked to point to three other pictures in turn of classmates they liked. Likewise, four "Spontaneous Negative" choices were elicited from the children by having them point to pictures of children they did not like. Finally, the examiner pointed to the remaining unselected pictures, one at a time, asking if the youngster liked or did not like the child in question. These were termed "Forced Positive" and "Forced Negative" responses respectively. Moore et al. (1964) concluded that the use of both acceptance and rejection questions is important; otherwise a distinction can not be made between children who are rejected opposed to those children considered as social nonentities. The use of negative choices reduced the margin of error present when rejection was inferred from the reverse of the acceptance responses. They also concluded that forced responses provided further differentiation between subjects in the middle or nonentity range. Dunnington (1975) agrees with Moore et al. (1964) that to accurately measure sociometric choice "forced" response must be elicited.

Another informative attribute of the Moore et al. (1964) study is the test-retest reliability it provides. The following table summarizes their findings:

group	subjects	age	test-retest reliability
1	18	3-2 to 3-10	.62
2	20	3-10 to 4-11	.52
3	24	4-6 to 5-6	.78

Overall, moderate test-retest reliability was found.

McCandless and Marshall (1957) conducted a similar study using a picture board technique with preschool children. Likewise they found only moderate reliability. However, in Dunnington's (1957a) study where the children were also forced to make choices, the 15 nursery school subjects had a retest ranking of plus .86. Even more promising, Dunnington found that the children divided into a low group (first quartile), middle group (interquartile), and high group (third quartile), and although their ranking changed on the retest, their status did not. In other words all children falling within the third quartile on first testing remained within this quartile on the second testing.

A sociometric method by Koch (1933) involves giving children a series of names, two at a time, and having them tell "Who do you like best?" This requires that the children be able to verbalize responses as well as comprehend the concept "best".

While sociometric methods differ depending on the type and level of children they are to be used with, Marshal and McCandles (1957a) believe

> "the sociometric test has been one of the most widely used and promising of the social behavior measures. Its usefulness (or validity) may be demonstrated by showing that its scores are related to observed group relationships: (p. 149).

Not only are sociometric choices related to observation (Marshall et al., 1957a), but teachers judgements of children's friendships have also been found to relate to sociometric choice (Dunnington, 1957a; Koch, 1933).

Present Study. For the purpose of this study two different sociometric procedures were used. First, the children were asked to point to the picture of the child he/she liked to play with the best. The picture was not removed. Because many of the children would point to the same child for his/her second, third, etc. choice a second procedure was employed in the second term. This time the picture was removed after the child made his/her choice. For both these procedures the children were asked to point to the four favorite playmates (strong positive) and the four children they did not like to play with (strong negative). For the three other children forced responses were elicited. To measure the reliability of these children's responses they were asked to repeat the same procedure after a 20 minute vocabulary assessment.

Teacher's Judgements. When investigating the relationship between sociometric choice and teacher judgements of friendships (Dunnington, 1975a and McCandless and Marshall, 1957) and popularity (Koch, 1933) contradictory findings occur. Marshall (1957) concluded that sociometric scales haven't predicted teacher judgements in the past because of the inadequacy of the sociometric scales and/or the fault of the statistical indices used.

In addition, McCandless and Marshall (1957a) found that teachers vary considerably in their ability to predict friendships. For example, the correlation coefficient between sociometric scores and the average teacner judgement ranged from .16 to .71. Dunnington (1957a) found a correlation of .73 between friendships as indicated by teacher judgements and sociometric scores. Finally, Koch (1933) found a correlation coefficient of .76 between teachers ratings of popularity compared with sociometric scores.

Teachers judgements of the emotional stability of mentally handicapped students placed in regular classrooms have been found to reveal bias. Flynn (1978) and Gardner (1963) were concerned with the findings of other authors who reported that mentally handicapped youngsters are better adjusted socially and emotionally in special classes as opposed to regular class placement. Gardner (1963) found special educators more accepting of educable mentally retarded children; hence scoring them better emotionally adjusted than a regular classroom teacher. Flynn (1978) set out to "determine if bias exists in the teacher's frame of reference" (p. 539). He compared ratings of regular class teachers with special class teachers on the same educable mentally handicapped child. Flynn used the "Flynn Elementary School Adjustment Scale (FESAS) (Flynn, 1975), which is a multiple choice behavioral observation scale" (p. 539). Sixty-one randomly selected educable mentally handicapped students between 8 and 14 years of age were randomly divided and rated on the FESAS by special education and regular class teachers. All sixty-one youngsters attended both a regular and special class. Although a .75 agreement between educators was found, special class teachers scored EMR students significantly higher ($p<.025$) on the FESAS than did the regular class teachers.

Teacher's judgements on children's social relationships with classmates were utilized by Parten (1932) to ascertain if they could be substituted for a more lengthy observational method. The observational procedure included having each of the 34 children observed for 1 minute per day for 21 days. What she found was that "The agreement between the Social Participation ratings arrived at from the general impressions of teachers and those obtained through systematic observations is very close" (p. 255). The ratings correlated from .59 for the most dissimilar rating to .79 for the most similar rating. However, when she combined the estimates of five teachers there was a .88 correlation. This correlation is impressive considering teachers did ratings in September after 2 months of summer vacation. In summary, this indicates that combined scores of several teachers correlate more closely with observations than when using the score of just one teacher. Parten (1932) concluded that combined "teacher ratings on social participation as measured in (her) study, should prove to be a satisfactory substitute for the one-minute sampling method" (p. 256).

Present Study. In this study, the teachers were each asked to evaluate the children's "popularity" in both the first and second term. The results of this scale were to be correlated with the children's sociometric responses.

Observations-Social Interaction. While sociometric scales and teacher judgements are two moderately reliable ways of measuring social relationships between young children, a more extensive method of investigating these relationships is through observation.

Mildred Parton (1932) conducted extensive observations on nursery school children to ascertain social participation. She observed 42 children between the ages of one and five during inside, free-play activities. These children came from varied social-economic backgrounds and their IQ's ranged from 81 to 145. The behaviors she observed were unoccupied behavior, onlooker, solitary independent play, parallel activity, associative play, and cooperative play. These behaviors have been defined in the Definition of Terms section of this report. She noted the behaviors of each child for one minute per day for a total of sixty days. Each hour was divided into 5 minute intervals. Her observation schedule alloted equal time in each 5 minute interval for each child.

> "The number of minute samples necessary to insure an unvarying picture of social participation was determined by assigning arbitrary weights to each category summing the scores for the odd and even days for individual . children, and running correlations." (p. 252)

The odd-even day reliability was found to range from .76 to .90 depending on the quantity of time sampled. For 10 odd and 10 even days the reliability was the former. The latter, .90 coefficient was found for 20 odd-even days of observation. Likewise, the interobserver agreement was found to range from .86 to .89 to .92 depending on the individual observer. The average percent agreement was 89% when the observations conducted by 3 observers were correlated with the writers observations.

Social participation in this study by Parten (1932) was found to correlate .61 with age. In other words older children were found to engage more in higher levels of play than their younger peers. On the other hand, IQ had a minimal correlation of .26 with social participation.

Wintre (1974) in his search for a device for recording free-play behavior in young children opted to modify Parten's

(1932) scale rather than develop another one. Some of the advantages of Parten's scale, according to Wintre (1974), are its high interrater reliability, high score correlation with teacher ratings, it can be used for comparative purposes because the data has been collected on normal children, and finally it follows Piagetian developmental stages. Wintre (1974) set forth to apply this scale to children with severe social adjustments. The children, 6 males from 6 to 10 years of age were attending a camp program. The children were observed each day during free-play using a counter-balanced design at three 10 second intervals. Only the play activity occuring for the majority of the 10 seconds was recorded. Because adult-child interactions could not be avoided, Wintre (1974) added a seventh category to Parten's Social Participation Scale. This category was defined by Wintre (1974) as:

> "Adult-directed behavior: Any behavior directed to an adult. This included such activities as playing with the therapist (coders), looking at the therapist (coders), and touching the therapist (coders)." (p. 346)

He found an 85.9% agreement between raters using this scale. This strong agreement resulted because high frequency behaviors correlated with high percent agreement. For example, solitary play was recorded most frequently and had relatively few disagreements. Cooperative play, on the other hand, occurred rarely and coders never agreed on its occurrence.

Guralnick (1976) also found value in Parten's (1932) scale and used it to measure social play behavior of mildly, mentally delayed and nondelayed children. He used the same observation procedure as did Wintre (1976) and found an 87% agreement between observers.

In summary Parten's (1932) social participation scale was found to have consistently high percent agreement between raters as found by Guralnick (1976), Parten (1932) and Wintre (1974).

Social interaction among nursery school children was also observed by Goodenough (1930). The 33 children in his study ranged in age from 27 to 39 months. Their IQ's ranged from 77 to 170 with mean of 110.5. Goodenough noted the following traits for these children: physical activity, talkativeness, laughter, compliance, social participation and leadership. Using 25 one-minute (15 second interval) observations the scales were revised until 95% agreement was found between coders observing simultaneously. However, in the original study all observations were conducted independently.

> "This method insures that factors incident to the immediate situation but not pertinent to the general field of inquiry will not operate to give a spurious appearance of reliability to the data; in other words, that errors of measurement will be uncorrelated" (Goodenough, 1930, p. 29).

Using this independent procedure with one observer noting behavior in the morning and another in the afternoon low percent agreement between observers was found for many of the traits. Goodenough (1930) concluded that observations should be conducted at the same time of day under similar conditions. While this may increase reliability of the scales, it may hinder acquiring a valid measure of the child's total behavior repertoire.

While Goodenough (1930) was concerned with the relationship between his studied traits and demographic varibles, Challman (1932) correlated these traits with friendship patterns in young children. As did Parten (1932), Challman (1932) observed interactions between children during free-play sessions when teacher interaction and influence on group formation was at a minimum.

> "A group was considered to exist when two or more children were in close spaitial relationship more or less isolated from other children or when they were mutually engaged in the same activity. When fifty percent or more of the membership of a group was changed, it was called a new group." (Callman, 1932, p. 149).

If a teacher influenced the formation of the group under study it was deleted from data. The observer entered the room and recorded all children that were together for a minimum of 15 seconds. Then he began again. Sources of error noted by Challman (1932) included: first, children were counted as being in a group even if they were not directly interacting; secondly, some groups were structured by chance especially when children awoke from their naps at different times. In fact he found these chance groups constituted seven percent of the total groups. Finally, "when children are engaged in the same activity, it is impossible to know what extent they are attracted by the specific play material and to what extent they are attracted by the children in the group" (Callman, 1932, p. 149).

Marshall et al. (1957a) summarizes that while Goodenough's (1930) time-sampling, qualitative check-list requires an extensive observational schedule it does have the advantage of providing qualitative aspects of the children's social behavior. On the other hand, Challman's (1932) technique only names the children playing together, thus it requires less observation time. When interested in significant relationships with sociometric choice, Marshall et al. (1957a) concludes that Goodenough's technique is apt to give these relationships because the Challman technique "may define play contacts too broadly" (p. 136)

Interactive behavior was also studied by Ziegler and Hambleton (1976). In their study two classes of trainable mentally retarded (TMR) were transferred to a regular public school from a special school. At the regular school they had an opportunity to interact with their nonhandicapped peers during non academic subjects. These two classes of mainstreamed TMR were compared with matched TMR children in a segregated special school.

> "Variables on which children were matched included sex, chronological age, social age, etiology, language(s) spoken in the home, student's expressive and receptive language, number of siblings in the home and birth order, and socioeconomic background, based on the father's education and occupation" (p. 459).

A checklist was used to assess 13 qualitative and quantitative interactions. These 13 categories were subdivided into "inadequate, adequate, and extremely adequate social behavior" (p. 459). While Ziegler et al. (1976) concluded that placement of TMR in regular classes promoted interaction between the TMR and nondelayed youngsters they failed to include the data in their article to support this claim.

Present Study. For the purpose of the present study the children were observed using the observation checklist in Appendix B. Information collected included the names of the children the individual was interacting with, which children were not in attendance, level of play or interaction and the quality of the interaction (social or antisocial). (Parten's (1932) 6 categories of play were used along with 2 additional categories including 'teacher directed' and 'conversational.' These two categories have been explained in the definition of terms section. The children were each observed twenty times for 15 second periods in the months of October and May.

In conclusion, the issue of educating mentally delayed preschool children with their nondelayed peers is an area posing much concern at present. While development is thought to increase when children have the opportunity to interact with peers of higher functioning levels, there is a chance that they will be rejected by their playmates, and hence not derive the benefits from an integrative placement. It is vital to study social interaction between these children to ascertain if the delayed child is being accepted, rejected or considered as a "social nonentity" by his/her nondelayed peers. Ways of measuring this interaction include sociometric scales, teacher judgements and behavior observations.

Activities which encourage interaction.

Given the assumption that play enhances child-learning, one of the objectives of this project was to outline which activities the teachers felt were most effective in encouraging interaction among the children in the program. The teachers were provided with a day book and asked to record the activities they did each day and evaluate them in terms of their ability to encourage the children to associate. Unfortunately the teachers didn't have the time to complete this activity book; however, they were interviewed and did suggest a number of activities they felt encouraged social interaction among the children. The analysis of the play activities was included to provide the teachers with feedback and suggestions on how to improve their program.

Skills and Abilities and Behaviors

Cognitive Ability. The Stanford Binet Intelligence Scale (Terman and Merril, 1972) was used to screen the children's general cognitive ability. As previously mentioned, one of the selection criteria was that the nondelayed children be functioning within the average range and the delayed children be functioning within the borderline to moderate range. This instrument was selected because its item format, age range, reliability, and validity make it the instrument to use with this specific population.

Adaptive Behavior or Social Competence. The Vineland Social Maturity Scale (Doll, 1963) was used as an interview schedule with the parents. There appears to be few reliable, valid and current social competence instruments available which can be completed by the parents. The Vineland appears to be the only adequate instrument to date. It was only administered at the preassessment phase of the project.

Social Competence in Classroom. The Kohn Social Competence Scale (Kohn, Barnes & Rosman, 1979) is a 73 item, 75 point likert scale. A copy has been included in Appendix B. This scale was to be completed for each child by the teachers in the Fall and Spring. However, the length of the scale made this an unreasonable task and only the preassessment package was completed and then not until January. This instrument was selected because it was thought it might provide an interesting comparison to the Vineland Social Maturity Scale completed by the parents.

Child's Classroom Attainment. The Preschool Attainment Record (Doll, 1966) was selected as a counterpart to the Vineland Social Maturity Scale which the author states is both a refinement and an extension of the Vineland Social Maturity Scale. This scale purports to assess the child's physical development (Ambulation and Manipulation) Social (Rupport, Communication, Responsibility) Intellectual (Information, Ideation, Creativity). This information was to be collected by the teachers at both the preassessment and postassessment stages. However, the teachers' heavy teaching load made it impossible for them to complete this instrument.

Receptive Vocabulary. The Peabody Picture Vocabulary Test-Revised (PPVT-R) (Dunn & Dunn, 1981) was used to measure the children's receptive vocabulary at pretest and posttest. According to Salvia and Ysseldyke (1981) the test has been "well developed and adequately standardized" (p. 278). The children were assessed individually in the Fall and again in the Spring by the investigator.

Expressive Vocabulary. The Expressive One-Word Picture Vocabulary Test (EOWPVT) (Gardner, 1979) was selected because its format is similar to that of the PPVT-R. This test can be used for children from the ages of 2 years to 12 years. The standardization was limited to the San Francisco Bay area. The reported median split half reliability was .94.

Visual Motor Integration. The Developmental Test of Visual-Motor Integration (VMI) (Beery & Buktenica, 1967) was used as a pretest-posttest measure to ascertain changes in the children's visual perception and fine motor coordination over the year. According to Salvia & Ysseldyke (1981) "the VMI has relatively high reliability in comparison to other measures of perceptual-motor skills. Validity is, however, questionable" (p. 368).

Child's Characteristics. The Pupil Rating Form (Watt, 1977) is an unpublished scale with 28, 5 point, semantic differential items. This scale was completed by the "teachers to describe the students classroom behavior. This instrument was completed as a pretest and posttest measure by both teachers. No reliability nor validity information was given on this instrument. A copy of this instrument has been included in Appendix B.

Behavior Problems. The Kohn Problem Checklist (Kohn et al., 1979) is a scale designed for children from the ages of 3 to 6 years. This scale has 49 items which the author concludes are "clinically significant" and "readily observable in the preschool or kindergarten setting." This scale was to be completed by the teachers in the Fall and the Spring, however, the teachers found it to be too lengthy; therefore, only the Fall assessment was completed. A copy of this instrument has been included in Appendix B.

Child's Attendance. The teachers were given an attendance chart and asked to complete it daily for each child. This information is relevant when looking at friendship patterns and social interaction among the children. Children who are away frequently naturally have less time to interact and ultimately form friendships with their peers.

Analysis of Program. Using an open ended question format the parents and teachers were interviewed in the Fall and Spring. The purpose of these interviews were to provide data to assist in developing objective questions for the main study. Isaac and Michael (1979) commented that "[o]ne of the best ways of developing good objective questions is to administer an open-ended form of the question to a small sample of subjects representative of the population in which you are interested. These more lengthy answers provide the data from which objective-type answers are derived" (p. 92). A copy of the interview questions can be found in Appendix B.

	Procedures
1981 February	reviewed instruments that are relevant for use with mentally delayed and nondelayed preschoolers
March	screened children for program on basis of previously mentioned selection criteria
April	continued to screen and review tests
July	selected children and instruments for study
August	began to preassess children entering the program. The instruments used have previously been outlined
September	preassessment completed by investigator took pictures of all the children in the class for sociometric scale
October	teachers given assessment package for each child parents interviewed: biodemographic, adaptive behavior, and expectations
Oct. - Nov.	observations on children sociometric scale, teacher's ranking of pupil's popularity
1982 Dec. - Feb.	analyzed data
April - May	observations, sociometric scale, teacher's rankings of pupil's popularity
May - June	the investigator did postassessments on children the investigator interviewed parents on the effectiveness of the programs

Design and Analysis

Guralnick (1973) discussed and criticized designs of studies used for this specialized preschool population. He warned against matched designs because matching is imperfect and even impossible when dealing with such exceptional children. Random Assignment Designs allow one to assess average gains; however he concluded that it doesn't consider individual gains. Thus the most appropriate approach for this group of children would be the "intensive analysis of each individual's behavior" (p. 279). Thus, because of the small sample size, lack of control groups, and preselection of children, generalization of findings is not appropriate. Because the main purpose of a pilot study is to provide insight for further inquiry, the data will be descriptive and statistical analysis will be provided only where applicable.

CHAPTER 3

RESULTS

The presentation of the results of the study has been organized in relation to the objectives and the instruments used in collecting the data.

Demographic Data. There were 11 children who entered the integrated program in September, 1981. Ten of these children completed the program because one of the nonhandicapped children moved out of the country in April. Of the eleven children 4 were considered "handicapped" and 7 "nonhandicapped". When selecting the children, it was expected that a balance of boys and girls could be represented - this was not achieved. There were not as many applications for girls as there were for boys; thus only 1 of the 4 handicapped children was a girl with 2 of the 7 "nonhandicapped" children being girls. Table 2 outlines the characteristics of the children selected for this program.

The ages of the nonhandicapped children ranged from 3 years 0 months to 3 years 8 months at commencement of the program with the average age being 3 years 2 months. The handicapped children ranged in age from 3 years 11 months to 4 years 2 months with the average being 4 years 1 month at the commencement of the program.

All the children in the program spoke english as their native language except for one special needs boy whose family was Portuguese.

All of the children in the program came from 2 parent homes. Six of the seven nonhandicapped children had one or both

Table 2

Demographic Characteristics of the Sample

Subject	Age at Entry	Native Language	Occupation Father/Mother	#Siblings	Birth Order	Previous Preschool Placement	Proximity to Present School	Transportation To School
*NHM1	3-8	English	Skilled/Skilled	1	1	Daycare	Across town	Parent drives
NHM2	3-0	English	Student/Homemaker	2	2	Nil	Campus	Walk
NHM3	3-4	English	Student/Homemaker	2	1	Campus Daycare	Campus	Walk
NHM4	3-3	English	Student/Homemaker	2	2	Campus Daydare	Campus	Walk
NHM5	3-1	English	Student/Student	2	2	Summer Integrated Class	Campus	Walk
NHF1	3-1	English	Student/Homemaker	2	1	Nil	Campus	Walk
NHF2	3-0	English	Student/Student	2	2	Nil	Campus	Walk
HM1	3-11	Portugese	Student/Homemaker	1	1	Present School	Campus	Walk
HM2	4-0	English	Professional/Homemaker	1	2	Present School	Across town	Parent drives
HM3	4-1	English	Professional/Professional	0	1	Present School	Across town	Bus
HF1	4-2	English	Skilled/Homemaker	1	2	Playschool	across town	Parent drives/bus

* NH = Nonhandicapped
H = Handicapped
M = Male
F = Female

Table 2 continued ....

#of neighborhood friends	Age range of friends	Major illnesses or accidents	Cognitive ability level	Adaptive behavioral level	Secondary hancicaps articulation disorder
2	4	Nil	low average	above average	Nil
3	3-4	Nil	average	above average	Nil
3	2-3	Nil	high average	above average	Nil
5	3-6	Nil	above average	superior	Nil
5	3-5	Nil	above average	superior	Nil
4	3	Nil	refused	superior	Nil
2	3	Nil	above average	above average	Nil
3	5-9	Nil	borderline	below average	English as a a second language
Nil	Nil	heart surgery	moderate	mild	Moderate visual impairment/moderate speech
Nil	Nil	Nil	mild	borderline-mild	Autistic behaviors/ language disorder
Nil	Nil	Nil		below average	fine motor and language disfunction

parents who were university students while only one of the parents of the handicapped children was a student. Only two of the mothers worked outside of the home.

One of the handicapped children was an only child, while the rest of the children had one or two siblings.

Eight of the children had attended a daycare or preschool previous to this program. Three of the handicapped children had attended a segregated class within the Berwick Preschool.

Because seven of the eleven parents lived at the University Family Housing Complex these children could walk to school. The other children were either bused or driven to school.

According to their mothers, all of the nonhandicapped children had playmates in their neighborhood while only one of the handicapped children had reported playmates within his neighborhood. It should be recognized, however, that all but one of these children with neighborhood playmates lived on campus where there is a high density of children of comparable age.

The children were all screened on the Cattell-Stanford Binet Intelligence Scale. The nonhandicapped children selected for the program and at the time of testing had IQ's within the low-average to above average classification range. One child refused to be tested. The handicapped children on the other hand had IQ's that ranged from below-average to a moderate delay.

The mothers of all the children were interviewed using the Vineland Social Maturity Scale in the Fall interview. The children's general level of social competency has also been included under "adaptive Behavior" in Table 2. The nonhandicapped children were reported to be functioning within the above-average to superior range while the special needs children were reported within the mild to below average range.

One of the nonhandicapped children was found to have an articulation and perhaps even a language disorder. All of the handicapped children had a secondary handicap.

Interactions

Two of the objectives of this study were to determine the level of play and quality of the interactions of the handicapped and nonhandicapped children, as well as to determine if the handicapped and nonhandicapped children are being accepted, rejected or considered as an anonymity by their classmates. Three procedures were used in assessing these interactions and the popularity of the individual children in the program (i.e., observation, sociometric scale, and teacher rankings).

In determining the popularity of children in the classroom and their interactional patterns it was thought that the children's attendance records should be considered first. Unfortunately, the teachers did not complete the attendance record given them by the examiners and most of the monthly school attendance records come June had been discarded. However, the records for the last four months were salvaged. These months corresponds to the postassessment period.

Table 3 shows the number of days school was in session each

Table 3
Number of missed days of school for each child in the Postassessment period.

Subjects	March (23)*	April (16)*	May (19)*	June (14)*
NHM1	4	5	3	6
NHM2	0	0	0	0
NHM3	2	1	4	3
NHM4	1	1	moved	moved
NHM5	0	0	0	1
NHF1	5	3	4	5
NHF2	1	8	0	1
HM1	2	0	0	1
HM2	4	4	0	2
HM3	4	1	2	1
HF1	1	0	2	0

* ( ) indicates the number of days school was in session each month.

month and the number of days each child was away each month. It can be seen from this data that while some children attended school every day other children missed up to as much as 50% of school in one month.

Observations. The level of play, quality of interaction, child's playmates, and the children present in the classroom at the time of the observation were recorded in the Fall and late Spring phase of the project. The children were to be observed in their "free-play" time in the morning which was between 9:30 a.m. and 10:00 a.m. Two major problems resulted. First, there was seldom a day when all children were present at one time in the classroom. Between children being away, arriving late, swimming, attending a language program, toilet training, and being assessed by the school personnel there were a few periods when only 3 children were in the classroom. In fact, when calculating the percentage of observational periods a particular child may have been absent from the room it ranged from 0% to 86% of the time. In addition, the second problem resulted in the degree in which the teacher's were interacting or directing the children in this free-play period. In the first term the teachers were found to be interacting with the children at an average of 20% of the observation time in this free-period. Depending on the individual child this might have ranged from 6.6% of the time to, for one child, as high as 46.6% of the time. In the Spring observation period the amount of teacher's direction observed increased to a mean of 36% of the time. In the Spring a student teacher was doing a practicum in the classroom which meant there were 3 teachers and only 10 students (one boy had moved). Because of the amount of teacher direction in the second term the children were only observed approximately 10 times.

Keeping in mind these limitations of the data the levels of play/interaction were calculated for each child. Table 4 illustrates the percent of the observed time each subject was observed within the various levels of play/interaction for both the Fall and Spring periods. As can be seen from the data there there is great variability among the children which makes generalization across the group not appropriate.

The quality of the interaction was basically recorded as whether the child's behavior was socially acceptable or antisocial-inappropriate. The results for each child can be found on Table 5. Antisocial (e.g., yelling, hitting, shoving) and inappropriate (e.g., noises, body movements) behaviors, were observed in both of the handicapped and nonhandicapped groups. For the most part less antisocial or inappropriate behavior was observed in the second term. The special needs child with the highest percentage of antisocial-inappropriate behavior actually became more social by the second term. In the first term he engaged in more solitary activities and carried around a bucket with animal toys. By the second term he became very friendly with another special needs child. When associating with this other child he would continually vocalize a drilling noise.

Table 4

% of observed tfme subjects were found to be within the varius levels of play/interaction within Fall(A) and Spring(B) observational times.

Subject	Unoccupied		Solitary		Onlooker		Parallel		Associative		Cooperative		Teacher Directed		Conversational	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
NHM1	6.6	10.0	20.0	10.0	0.0	10.0	3.3	20.0	13.3	20.0	0.0	0.0	20.0	30.0	6.6	0.0
NHM2	0.0	0.0	6.6	10.0	0.0	0.0	60.0	40.0	13.3	20.0	0.0	0.0	20.0	30.0	0.0	20.0
NHM3	0.0	0.0	20.0	10.0	0.0	0.0	13.3	10.0	40.0	10.0	6.6	0.0	6.6	70.0	13.3	0.0
NHM4	0.0	0.0	13.3	0.0	0.0	0.0	20.0	0.0	20.0	0.0	6.6	0.0	33.3	0.0	6.6	0.0
NHM5	0.0	0.0	26.6	10.0	6.6	10.0	26.6	30.0	26.6	30.0	0.0	0.0	20.0	10.0	0.0	10.0
NHF1	0.0	0.0	0.0	10.0	20.0	20.0	33.3	20.0	6.6	0.0	0.0	0.0	26.6	40.0	0.0	0.0
HM1	0.0	0.0	26.6	0.0	13.3	0.0	26.6	30.0	0.0	0.0	0.0	0.0	40.0	70.0	0.0	0.0
HM2	13.3	20.0	40.0	30.0	6.6	10.0	26.6	10.0	0.0	0.0	0.0	0.0	6.6	30.0	13.3	0.0
HM3	0.0	0.0	53.3	10.0	13.3	20.0	13.3	30.0	0.0	0.0	0.0	0.0	13.3	40.0	6.6	10.0
HF1	6.6	10.0	20.0	20.0	13.3	0.0	6.6	10.0	0.0	0.0	0.0	0.0	46.6	60.0	0.0	0.0
Mean													19.97	36.0		

Table 5
The percentage of social and antisocial or inappropriate behaviors observed in the Fall and Spring terms.

Subjects	Social 1st.	Social 2nd.	Antisocial/Inappropriate 1st.	Antisocial/Inappropriate 2nd.
NHM1	86.6	100.00	13.3	0
NHM2	100.0	90.00	0	0
NHM3	93.3	100.00	6.6	0
NHM4	100.0	*	0	*
NHM5	93.3	100.00	6.6	0
WHF1	93.3	100.00	6.6	0
WHF2				
HM1	93.3	100.00	6.6	0
HM2	100.0	100.00	0	0
HM3	20.0	20.00	80.0	80.00
HF1	93.3	80.00	6.6	20.00

* Child moved

Sociometric Data. The Picture Sociometric Scale was incorporated into this pilot study to determine if this type of instrument is valid and reliable for use with the chronological age and developmental level of the children in this program, and if so, to determine friendship patterns among the children. These friendship patterns will serve to evaluate the second objective of this study which is to determine if the handicapped children are being accepted, rejected or considered as an anonymity by their nonhandicapped and handicapped peers.

Percent agreement was calculated comparing the pretest and retest scores. The responses were divided into 3 categories: "liked" "disliked" and forced response. Table 6 shows the % agreements of this instrument for all children in the Spring term when the second procedure of removing the picture after the child responded was used. As can be seen the percent agreement ranged from 50.00% to as high as 87.5%. The mean was 73.3%. However, this average does not take into consideration the 3 handicapped children did not appear to understand the task and either did not respond or pointed to the pictures at random. Due to the variability among the children in their percent agreement scores (50% to 87.5%) and the overall moderate reliability (even when only three classification categories were used in determining the reliability), it would appear that this procedure is not reliable enough to make any conclusions with regards to the children in this program and their playmate preferences.

Table 6
% retest agreement of
Picture Sociometric Scale

Children	% Agreement
NHM1	50.0
NHM2	87.5
NHM3	66.6
NHM4	55.5
NHM5	60.0
NHF1	87.5
NHF2	*
HM11	**
HM2	**
HM3	**
HF1	66.6

The mean % agreement was 73.3%.

* One of the nonhandicapped girls refused to participate in this assessment procedure.

**The examiner terminated testing on these three children because it was felt they didn't comprehend the task.

Table 7
Subjects by Teacher's Rankings and their
popularity within pretest and posttest assessment

	Prestest		Posttest	
Child	Teacher 1	Teacher 2	Teacher 1	Teacher 2
NHM1	4	3	4	4
NHM2	4	4	4	4
NHM3	4	4	5	4
NHM4	5	5	5	5
NHM5	4	4	4	4
WHF1	3	4	5	5
WHF2	4	4	4	4
HM1	3	3	4	4
HM2	4	3	4	4
HM3	3	3	3	3
HF1	3	3	4	4
Mean	3.73	3.64	4.18	4.09

Scale: 5 (popular) to 3 (isolete) to (not popular)
Pretest .67 Posttest .87 interrater reliabilities

Teacher Rankings on Popularity. Both teachers were asked to complete the Popularity Ranking Scale on all children in both the Fall and the Spring. Table 7 lists the raw scores for all the children. The scale range from a 5 (popular) to a 1 (unpopular) although there was some variability between teacher's scores for individual subjects the means of the scores between the 2 assessments for both teachers did not differ significantly. Likewise, although the teachers generally scored the children to be more popular in the Spring than the Fall this difference was not significant at the .05 level (t=2.1929). In turn, the interrater reliability in the first term was only .67 while in the second term the reliability increased to .87.

Activities Which Encourage Interaction. Unfortunately the teachers did not have time to complete the daily activity book and judge the extent to which the play activity encouraged interaction among the children. However, the investigators did interview the teachers and the following is the list of classroom activities they found useful in encouraging the children to asociate: including

1) dramatic play,
2) action stories,
3) finger play,
4) water play,
5) building murals,
6) nature hikes, and
7) cooking.

Skills and Abilities and Behaviors.

Cognitive Ability. The children's cognitive ability was one of the variables used to select the children for the program. This date has previously been discussed in the Demographic Date section of the report.

Adaptive Behavior. Likewise, the social competence of these children as reported by their parents has previously been discussed in the Demographic Data section of this report.

Social Competence in Classroom. As previously mentioned the teachers did not have time to complete this rather lengthy scale until January which precluded using this data as a preassessment description of the children, and subsequently correlating it with the social competency information provided by the Vineland Social Maturity Scale.

Child's Classroom Attainment. This information was not collected due to the teachers time restraints.

Receptive Vocabulary. Table 8 shows the standard scores at pretest and posttest for all the children assessed on the PPVT-R. The gain scores from preassessment to postassessment were significant. ($t=2.81;p>.05$). The difference in scores ranged from a loss of 2 standard score points to a gain of as much as 21 standard score points. The average gain across the 8 children who were tested at both sessions was 8 standard score points. This significant gain appears to indicate that the children's receptive vocabulary improved significantly between the Fall and the Spring term.

Table 8
Receptive and expressive vocabulary standard
scores for each child at pretest and posttest periods

	Vocabulary			
	Receptive		Expressive	
Child	Pretest	Posttest 2	Pretest	Posttest
NHM1	102	123	98	115
NHM2	92	92	116	104
NHM3	91	101	100	97
NHM4	115	*	116	*
NHM5	94	108	86	113
WHF1	**	**	**	**
WHF2	94	103	88	90
HM1	59	**	72	**
HM2	43	43	<55	<55
HM3	57	79	<55	84
HF1	88	86	76	78

$t = 2.81$; $p < .05$ $t = 1.478$; $p < .05$

* moved
**refused

Expressive Vocabulary. Likewise, Table 8 illustrates the pretest and posttest scores of all the children assessed on the EOWPVT. There was not a significant difference between the pretest and posttest scores of the children on this expressive vocabulary test ($t=1.478$; $p>.05$). The difference in these scores between the pretesting and posttesting ranged from a loss of 12 standard scores points to a gain of approximately 29 points. The mean gain was 7.75 points.

Visual Motor Integration. The raw scores and age scores for all the children tested in the Fall and Spring can be found on Table 9. The children's gain scores ranged from 0 to 3.

Child Characteristics. The entire Pupil Rating Form was completed by both teachers in the preassessment and postassessment phase of the project. However, for the purpose of this discussion only three of the scale's 20 items will be discussed (VIZ. sociability, group participation and independence). These are the three behavior goals set by the teachers for the children in the program. The interrater reliability (Pearsons Product Moment Correlation) on these three items ranged from .263 to .820. The main problem with this scale is that the items have not been described in behavioral terms. In turn, one item is hardly enough sampling of the persons behavior repetoire to lead to a valid interpretation of the subjects behavior in a given area. The subjects scores can be found on Table 10 (Sociability), Table 11 (Group Participation), Table 12 (Independence). Significance between pretest and posttest behaviors for each of these 3 behaviors was not achieved. The results of these items should be interpreted with caution due to the already mentioned limitations of this instrument.

Table 9

Visual motor integration raw scores and age equivalents for each child at pretest and posttest periods.

Subjects	VMI Raw Scores			
	Pretest		Posttest	
	Raw Score	Age Score	Raw score	Age score
NHM1	5	4-4	5	4-4
NHM2	0		2	3-0
NHM3	3	3-2	6	4-6
NHM4	2	3-0		
NHM5	3	3-2	5	4-4
NHF1				
NHF1	3	3-2	3	3-2
HM1	1	2-10		
HM2	0		1	2-10
HM3	2	3-0	2	3-0
HF1	3	3-2	3	3-2

scores for each child at pretest and posttest periods

Table 10

The level of sociability of each child at pretest and posttest as rated by both teachers individually

	Pretest		Posttest	
Subjects	Teacher 1	Teacher 2	Teacher 1	Teacher 2
NHM1	2	2	3	4
NHM2	2	3	2	2
NHM3	2	2	2	2
NHM4	3	3	*	*
NHM5	3	3	3	3
NHF1	3	4	3	3
NHF2	3	2	2	3
HM1	4	4	3	4
HM2	3	4	3	4
HM3	3	3	3	4
HF1	2	2	3	2
Totals	27	29	27	32

Scale: 1 (extraverted) to 5 (introverted)
r pretest .696 r posttest .758
* moved

Table 11

The level of group participation of each child at pretest and posttest as rated by both their teachers individually.

	Group Participation			
	Pretest		Posttest	
Subjects	Teacher 1	Teacher 2	Teacher 1	Teacher 2
NHM1	4	4	4	2
NHM2	5	3	4	4
NHM3	5	4	5	4
NHM4	4	3	*	*
NHM5	3	3	3	4
NHF1	4	2	3	4
NHF2	5	3	4	4
HM1	2	3	3	3
HM2	1	3	1	1
HM3	3	2	2	2
HF1	3	3	4	4
Totals	35	30	33	32

Scale: 1 (little participation) to 5 (much participation)
r pretest = .263 r posttest = .709
* moved

Table 12

The level of independence of each child at pretest and posttest as rated by both their teachers individually

	Independence			
	Pretest		Posttest	
Subjects	Teacher 1	Teacher 2	Teacher 1	Teacher 2
NHM1	4	3	1	2
NHM2	4	4	3	4
NHM3	3	4	4	4
NHM4	4	4	*	*
NHM5	4	5	5	5
NHF1	3	4	2	3
NHF2	3	4	5	4
HM1	2	3	2	3
HM2	1	1	1	1
HM3	4	3	4	3
HF1	3	3	2	1
Totals	31	34	29	30

Scale: 1 (dependent) to 5 (independent)
r pretest = .686 r posttest = .820
* moved

Behavior Problems. Because the teachers did not have time to complete this scale in the postassessment period, and the preassessment data wasn't completed until January, the results were not analyzed.

Analysis of Program

During the course of the program the investigator had an opportunity to interview the parents and teachers involved in this integrated program as well as some of the support staff and the director of the school. A number of issues surfaced while interviewing these people. These issues are put in question form and are qualified in this section in general terms so as not to identify individuals.

1. How did the parents hear about the program?

   Of the nonhandicapped children in the program, the majority of their mothers said they heard about the program from another mother who was either planning on placing her child in the program or who had a child who had completed the program. One othe mother heard about the program from a friend who worked at the school. Three mothers of the special needs children said they were approached by personnel at the school and encouraged to apply. One mother was informed about the program from a therapist in the community.
2. Why did the parents decide to place their children in the program?

The following is a compiled list of the reasons why the parents of the nonhandicapped children decided to place their children in the program: these include

- the program appeared structured;
- the children have a chance to interact with children of varying developmental levels;
- the program was not as long as other preschools;
- the school has a pool;
- music was incorporated into the program;
- the school has the best resources in the community;
- other mothers said the program was good;
- the teachers are well qualified; and
- there was a good ratio of children and teachers.

The parents of the special needs children were more interested in the fact that their child would have a chance to interact with his or her nonhandicapped peers and hopefully benefit socially and cognitively from this experience.

3. What reservations did the parents have with regards to placing their child in the program?

The majority of the parents of the nonhandicapped children said they had no reservations about placing their child in the program. However, there were some concerns over the length of the day, and the fact that the pilot program originally was only going to be for one year. This would mean the parents would have to find another educational placement for their child the following year.

One parent also felt the nap was not necessary.

One parent with a special needs child expressed concern that her child might have problems coping with the more active and cognitively advanced children. Other parents were concerned that their children might not get the individual attention they received in the segregated classroom.

4. What are the goals and specific objectives of the program?

Both teachers agreed at the beginning as well as the end of the program that the goals of the program were to enhance the student's social skills, ability to participate within a group and their independence. The teachers agreed that during the year all of the children improved in these three areas.

Written objectives were developed at the beginning of the year for the four special needs children. These objectives generally differed among the children, however, the teachers worked on improving the language of all the special needs children. They both agreed that all of the special needs children had either improved their expressive vocabulary and/or the appropriateness of their expressive language.

The parents were also interviewed in the Fall and Spring terms as to what they felt the goals of the program should be. The parents of the nonhandicapped children interviewed in the Fall felt that the goals of the program should be to encourage:

- social skills,
- swimming skills,
- understanding of the handicapped,
- language,
- tolerance of other people, and
- independence.

The parents of the special needs children felt the goals of the program should be to encourage:

- language,
- rediness skills, and
- social skills.

By November the parents overwhelmingly stated that they felt the program was "great" and well on its way to achieving the goals they felt were important.

At the end of the year the parents were retrospectively asked what they felt the goals of this program should have been. The parents with the "normal" children concluded:

- social skills,
- basic readiness skills,
- playskills,
- group participation,
- working with the handicapped, and
- enjoyment.

The parents of the special needs children concluded that language development, social skills and toilet training should be the goals of this program.

All but one of the parents felt that the teachers did work toward and achieve the goals they as parents felt were important. However, many of them clarified that more time should be spent on teaching the children school readiness skills.

When talking with the teachers, parents, and other school personnel there appears to be some confusion as to what the main goals of the program were. While the teachers consistently agreed on the main goals of the program from the first to the second term, the parents of the nonhandicapped by he end of the program were putting more emphasis on readiness skills as a major goal of the present program.

What positive changes in the children were observed?

When interviewed at the end of the program the teachers agreed that the children's social skills, independence and ability to participate in a group had improved. They also agreed that improvements in their student's language and self-confidence was also evident.

The teachers observed other positive changes in the special needs children: these included,

-greater willingness to participate in a group;
-improvment in their problem solving ability;
-a decrease in their inappriate behavior;
-a decrease in their external reliance;
-an improvement in their confidence, and
-an improvement in their awareness of classroom events.

The parents were interviewed in November and again in June as to the positive changes they had noticed in their children. The following is a list of improvements in their children's behavior, which the parents of the handicapped children put forth in November. These include:

- -language (vocabulary and expression),
- -play skills,
- -drawing,
- -attention span,
- -calmness
- -internal locus of control,
- -problem solving ability,
- -acceptance of others,
- -social skills, and
- -assertiveness.

By June the parents of the nonhandicapped children had noticed improvements in their child in one or more of the following areas, including:

- -socially,
- -language,
- -eating habits,
- -swimming ability,
- -playskills, and
- -assertiveness.

The parents of the special needs children when interviewed in November had noticed improvements in their children in one or more of the following areas, including:

- -social skills,

- -language (articulation, volume, vocabulary),
- -initiation of conversation,
- -independence, and
- -confidence.

By the end of the term one or more of the following behaviors were seen to have improved in the special needs children, as reported by their parents, these include:

- -social skills,
- -language,
- -initiating conversation,
- -playskills,
- -assertiveness, and
- -confidence.

What were the Negative Behavior(s) of the children acquired over the course of the program?

Again the parents were interviewed in November and June. In November, 3 of the 7 parents of the nonhandicapped children reported that they had observed no negative or inappropriate behaviors. Of the negative behaviors reported, 2 parents reported that their children had mimicked the inappropriate behaviors of their peers and 2 parents reported the child's behavior had become more demanding. In the June interview the only additional "negative behavior" reported was that one mother felt her child had lost interest in school.

Of the 4 parents of handicapped children, only one parent reported that her child had occassionally mimicked the negative behaviors of his/her classmates.

The only negative behavior the teachers observed during the program was that a few of the children mimicked some of the inappropriate behavior of their handicapped and nonhandicapped peers. These included whining and thumb sucking. The teachers concluded that this mimicking only occurred for a maximum of two days at a time. They added that they just ignored the mimicking behavior.

Did the children have any problem adjusting to the program?

It appears that from interviewing the parents and the teachers that the children in this program adjusted fairly quickly to the classroom routine. Four of the parents said it took about two weeks for their children to adjust to the classroom routine and one parent stated that her child never really wanted to go to school in the first place. Once they had adjusted to the classroom routine only two of the children periodically were not eager to go to school and this was generally because they were tired in the morning.

The teachers were only aware of one child who came to school and didn't want to stay - this only happened once. The teachers concluded that this incidence was probably not related to the program but rather the child's reluctance to leave his mother.

Did the parents have an opportunity to observe the classroom routine?

As previously described, the classroom had a one way window behind which was a room where the parents could watch and hear the activities in the classroom. The parents always had access to the observation room. Only two of the seven parents of the nonhandicapped children did not have the opportunity to view their children in the classroom. Only one parent with a special needs child did not have the opportunity to observe her child. Seven of the parents had observed their child within the last month of school.

Did the classroom routine change throughout the year?

As the year went on the teachers felt there appeared to be more group activities that were teacher directed. They added that this change was not planned. Indeed, the observations done on the children confirmed that while in November approximately 20% of the activities and interactions in the children's free-play time were teacher directed, 36% teacher directed activities were observed in June.

How Could the teachers improve the learning milieu?

The parents were interviewed in June as to how they felt the teachers could improve the learning environment. All of the parents interviewed suggested there should be either more structure, more planned skill activities or both.

Was the duration of the program day adequate for the children in the program?

The teachers both agreed that the 9 am to 2 pm program day was perfect for the group of children. However, 3 of the parents felt the day was too long. They suggested that instead of having a nap after lunch the children could be sent home. In fact, half of the parents felt the nap was not necessary.

Was the teacher to child ratio acceptable?

The teachers concluded that the 2 teachers to 11 students was adequate; however, they felt the program could be improved if the ratio was 2 teachers to 10 students. The parents of the nonhandicapped children agreed that the ratio was not only adequate but in fact excellent. Two of the parents of the nonhandicapped children felt this ratio was excellent while 2 parents suggested 3 teachers to 12 students would be ideal.

The ratio of handicapped to nonhandicapped children - was it acceptable?

In keeping with their ideal of ten students, the teachers felt 6 nonhandicapped and 4 handicapped would be an adequate ratio. In turn, they concluded that this type of integrated program works best if all the children are ambulatory and have some communication skills. All of the parents felt this ratio was adequate.

Were all the children accurately placed?

The parents and teachers generally felt that the children were all placed appropriately in the program. There was some concern that one of the nonhandicapped children had some problems and should have been considered a special needs child. The mother of a special needs boy expressed concern that her child was developmentally behind the other children. The teachers also felt that this child was significantly behind the other children which made it more difficult for them to plan group activities. However, during the year this child began to make overtures of friendship toward the other children which the teachers felt were encouraging.

Did the children's behavior suggest that they were aware of the various disabilities of children in the school?

For the most part the children did not discuss nor question the various handicaps of the children in the classroom or in the school. However, there were a few occasions when the children did appear to notice. For example, one girl in the school had been severely disfigured as a result of a fire, and a nonhandicapped boy in the integrated class was frightened of this child. However, within a short period of time he was playing with this child on the playground. None of the children in the integrated classroom were physically disabled. In fact observers often found it difficult to identify the handicapped children from the nonhandicapped.

When the parents were asked if their child discussed the various handicaps of the children in the school, they reported that the comments the children made were usually ones of curiosity. For example, "what happened to this child, "he is talking now,"kids at our school have braces".

How did the parents attitudes toward the handicapped change as a result of having their child in the program?

Of the 5 parents with nonhandicapped children in the program, 3 felt that they had more positive attitudes toward the handicapped. One mother felt her attitudes had always been positive and another mother said she had never thought about it. Three of the four special needs children had attended the school the previour year. Thus this question was not applicable. The other mother whose child was new to the school concluded that she now sees the handicapped as being much more capable.

Should the teachers actively encourage the children to interact?

All the parents except for two felt that the teachers should plan activities that encourage interaction among the children. Parents also generally agreed that the teachers should direct children into a group activity if it appeared that one child was being left out.

The teachers concluded that they planned their daily activities with all children in mind. These group activities usually evolved around art, music or games. As previously mentioned, the teachers concluded that dramatic play, action stories, finger play, water play, building murals, nature hikes, and cooking were particularly successful in encouraging the children to interact with one another. What were the strengths and limitations of the teachers?

The parents were asked in June to describe the teachers strengths and limitations. The strengths of the teachers as described by the parents include their:

-ability to relate to the children,
-patience,
-understanding,
-selection of appropriate activities,
-consistent behavior,
-expressiveness,
-qualifications,
-sensitivity,

-way of encouraging the children,
-good verbal directions, and
-excellent teaching ability.

When asked about how the teachers could improve their performance 2 parents commented that they should have a time when they can talk with the parents about their children's progress.

How are the services within the school integrated?

The teachers felt that the service they could offer the children would improve if the therapist would work with the children as a group rather than take individual children out of the classroom for therapy. The teachers also felt they could benefit from talking to the therapist - perhaps before or after school.

How do the teachers feel about research being conducted on their program?

The teachers agreed that they do not object to research being carried out on their program as long as the researcher does not "follow [them] around" or "revamp [their] program".

What are the teachers goals for the second year of the program?

The teachers concluded that next year the children will be a year older, thus they will focus on:

1) improving the children's readiness skills for kindergarten;

2) further increasing the children's ability to function independently; and

3) encourage further group participation and cooperative

play.

How can the teachers improve their program?

The parents were interviewed in November and in June. The following is a list of suggestions the parents of nonhandicapped children put forth as feedback to assist the teachers in improving their program, these include:

-teach basic readiness skills;

-more structured activites and seatwork;

-get out of the classroom more;

-incorporate more of a variety of art activities into the program;

-display the children's art work;

-eliminate the children's nap;

-have times for parent interviews;

-make more materials for the doll corner;

-discuss different cultures;

-have dress up games;

-do more felt board activities;

-as teachers, visit other preschools to get activity ideas;

-do more activities with the other classes in the school; and

-have the language and physiotherapy programs within the classroom.

The parents of the special needs children suggested that:

-more task time is essential;

-the children shouldn't be removed from the classroom for language and physiotherapy; and

-a more structured program is desired.

Would you recommend this integrated program to other people?

All the parents said they would recommend the program to others. One mother, however, felt that she would only recommend the program if people specifically wanted their child in an integrated setting. She concluded that she wasn't convinced children should be integrated. It was her child who had the most problems adjusting to the school routine and program mainly because he felt more comfortable at home with her.

If this program was not in your neighborhood school would you transport your child to this program?

Of the 6 parents who lived across the street from the school two said they would transport their child to this program. The other parents said they would first consider a program in their neighbourhood, even if it was not integrated.

CHAPTER IV

CONCLUSION

In this section, the objectives of the study, the choice of instruments and the issue of integration will be addressed.

Addressing the Objectives and Instruments

Level of play. The normal children engaged in predominantly parallel and associative play which is developmentally appropriate for their age. All of the handicapped children engaged in parallel play at sometime but not in associative play. In turn, the special needs children engaged in more interactive play in the second term than in the first term. The level of play is an important variable to consider when the teachers are developing play activities for the children. Even in the childrens free play activity a substantial amount of teacher cirection occurred. This can be positive if the teachers use themselves as a catalyst for encouraging more associative and cooperative play activities.

It should be recognized that the observational instrument used was only a pilot instrument and no reliability information is available on it. If another study is to result in which the level of play is a variable being evaluated, a more behavioral oriented description of the behavior should be considered.

Quality of Interaction. In this study only the social and antisocial or inappropriate behaviors were recorded. This data was to be used to develop a more comprehensive checklist for the main study. The results, however, appeared to indicate that the majority of the children interacted in a socially appropriate manner. For future studies a more detailed interpretation of the qualities of interactive behavior is in order. For example, the child initiating the interaction, the response he or she was given, and the quality of their interaction might provide practical suggestions on how to improve the children's interactional skills. Videotaping the children in a play situation will hopefully provide more specific and reliable analysis of the children's quality of interacton.

Acceptance of the Handicapped. The problems inherent in the instruments make anything other than impressions inappropriate at this time. Through observations and interviews with the teachers and the parents it appears that the children were all "accepted" by one another. However, comes the distinction between being "accepted" and "friend". A case study approach will be used to clarify. The only special needs girl in the program was one of the more externally reliant children. When not observing the other children playing she was usually near one of the teachers. The teachers were trying to teach her how to initiate an interaction in an appropriate manner, which she was having difficulty with. This child had no neighborhood playmates and only one older brother. She, although, accepted by her classmates was usually not their choice of a playmate.

Two of the special needs boys appeared to prefer to play close to each other. Both parents of these boys concluded that when at home they talked about their school "friend". Both os these children periodically were selected by the other children to play with.

The third boy in the program was the more severely delayed. His small stature and compliant behavior made him a favorite playmate. However, the parents and teachers concluded that the children treated him more like a young sibling and at times even a baby.

In summary, a more detailed analysis of the children's friendship patterns through video taping their interactions should be considered. For this group of children the picture sociometric technique did not prove to be extremely reliable, therefore, the validity of it remains questionable. Teacher rankings should be explored in more detail as should the theory behind friendship patterns. This might contribute to the development of a more behavioral oriented scale assessing friendships among children.

Activities to Encourage Interaction. The list of activities the teachers felt encouraged interaction has previously been given in the results section of this report. No analysis of these activities was conducted.

When interviewing the teachers and parents the majority of their responses indicated that they favored the teachers directing and encouraging the children to interact. Some parents expressed a concern, however, that if the children are not allowed to make friends and play with whom they wish, the teachers involvement may only serve to make the children more resistent to playing with the child in question.

Cognitive Ability. Changes in the children's cognitive ability, although not measured in this study, would provide additional input as to the changes in cognitive status. It should be cautioned that these instruments do not measure the way the child uses his/her ability. For example, there may not be a difference in the child's IQ score over intervention, however, his/her school performance may have improved significantly. If cognitive ability is to be used as one of the variables then for this group of children, perhaps both a verbal and nonverbal instruments should be considered. The Stanford-Binet with its short response item format and good reliability make it still one of the better intelligence instruments for delayed children of this age. However, for children with limited verbal and/or motor ability a nonverbal instrument is necessary. In addition to a norm-referenced instrument, criterion-referenced instrument and Goal Attainment Scaling have proven useful in assessing the effectiveness of some intervention programs.

Social Competence. The teachers found the Kohn Social Competence Scale and the Preschool Attainment Record too lengthy to complete. Therefore, no relationship between how the parents and teachers perceive the social competence of the children was conducted. When selecting instruments for another study one should carefully consider the time the teachers are prepared to give to completing them. If the teachers do not have the time then other methods, both direct and indirect, should be considered.

Receptive Vocabulary. The children's receptive vocabulary significantly improved over the course of the program. It should be remembered that the children were selected for the program on the terms that they were at least vocalizing, therefore, randomization was never achieved. It is not known whether improvement in language generally occured as a result of preschool experience or whether these gains might be related to the language stimulation the children received in this program, or their opportunity to interact with other children and adults.

Expresive Vocabulary. The children's expressive vocabulary scores did not differ significantly between the preassessment and postassessment period.

Expressive and receptive vocabulary are only two aspects of language. If a main study is to be conducted a more extensive analysis of the children's language is important.

Visual Motor Integration. The children's visual motor integration was assessed at the two stages of the project. This is only one measure of a motor related skill. If future studies in this area are to occur perhaps a more involved look at five and gross motor skills should be considered.

Child characteristics. The 3 main goals the teachers set for the children (VIZ. sociability, group participation, and independence) were assessed using an instrument of moderate reliability and questionable validity. Interestingly, the interrater reliability of this teacher scale increased from the preassessment phase of the project to the postassessment. This was the first year these two teachers worked together so probably by the end of the year they were more in accord in their interpretation of the children's behaviors.

There was no significant difference between the preassessment and postassessment periods for the children as measured on the Pupil Rating Form. However, the teachers and parents felt encouraged that the children's behaviors had improved in these 3 areas.

In summary, a balance between observations, parent interviews, child assessment and teacher reporting was attempted but not achieved. After the objectives of the study have been outlined and all possible ways of collecting and analyzing the data considered, the parents and teachers and school personnel should be interviewed as to how much direct time they feel the children should contribute to the study as well as how much time they themselves have to contribute.

Integration

The advantages of integrating preschool handicapped and nonhandicapped children has been reiterated frequently in the literature. It has been hypothesized that children learn most of their skills in their interpersonal environment, for it is this social interaction that is critical for behavioral development. Because of the pilot nature of this study, and hence, lack of control, randomization, and small sample size, conclusive and causal claims can not be given. Of the behaviors measured in this study receptive vocabulary was the one behavior that did improve significantly over the course of the program. This is important to consider as it is one aspect of verbal language which is the predominate method of communicating.

Language is a catalyst for interaction among people. The other positive child changes the teachers and parents reported in the program analysis section of this report will hopefully give some insight into additional variables to be researched.

In turn, the disadvantages of integrating children have also been addressed in the literature. The two disadvantages most commonly discussed are the problems of the nonhandicapped children imitating the inappropriate behaviors of the handicapped as well as the handicapped as well as the handicapped child having a poorer self-concept as a result of having to compete with his or her nonhandicapped peers. These two factors were indirectly addressed in this project. First, while the teachers and parents commented that a few of the children did imitate the behaviors of the children in the classroom they did qualify by stating that this imitative behavior only lasted a couple of days - if it was ignored, and occurred in both the handicapped and nonhandicapped children. It should be noted that some of the inappropriate behavior being imitated came from the "normal" children. Second, the parents and teachers were questioned on the problems, if any, the children had in adjusting to the classroom routine, their eagerness to go to, and their willingness to remain at school. There was nothing in their comments that suggested the integrated classroom was hindering the children's feelings of self-worth within the classroom. Self-concept is a difficult behavior to assess especially in preschool developmentally delayed children.

The advantages and disadvantages of an integrated setting should be addresssed in both experimental and case study designs. This will allow for generalization of findings as well as the consideration of individual characteristics .

Limitations of the Study

This pilot study was restricted to a preselected group of 11 subjects who volunteered to participate in the study. The majority of the parents were university students who lived on the campus in close proximity to one another. Because of the One-Group Pretest Posttest Design of this pilot project, no causal conclusions can be made with regards to the research findings. However, the main intent of this study was to pilot the instruments and procedures to give insight into improvement for a main study - this was accomplished.

Recommendations

Program

The following is a list of suggestions for the teachers and school personnel to consider when attempting to improve the integrated program. These recommendations have been taken from interviews with teachers and parents.

1. Perhaps the teachers should write down the goals they have set for the school year and provide a description of some of the procedures they plan to follow in helping the children attain these goals. This statement of goals, objectives and procedures will give the parents something

to consider before they decide to place their child in the program. If for example, a parent wants his/her child to have more training in school readiness skills and less emphasis on social skills then they can make a decision to place their child in a different preschool that emphasizes different goals than the present preschool.

2. After accepting the teachers program goals it might be useful in September if the teachers and parents as a group sat down and discussed their expectations for the year. The teachers might discuss how they plan to handle any adjustment or behavioral problems, for example, this will hopefully encourage the parents to be supportive so attempts at dealing with problems will be consistent between the home and school.
3. At the initial meeting in September, the teachers might find out that the parents have a specific skill in an area that might benefit the school program. Arrangments might be made to have the parents volunteer in the classroom. This might bring the ratio of children to adults closer to the suggested ideal.
4. While the amount of teacher direction during the children's free-play made it difficult to observe free-play interactions, this teacher involvment was and could be further used to stimulate playskills. Instead of encouraging parallel play type activities more emphasis on associative and cooperative play interactions should be considered for the following year. The children will then

be 4 and 5 and will be developmentally ready for these activities.

5. It might be useful for the school as a whole to work on an activity book that describes play activities that they have found useful in encouraging interactions among the children. This will hopefully lead to more interaction among the teachers which will encourage more integration among he staff in the school.

6. If the concept of integration is to be considered the program personnel should work together to provide the children with their specific skill training within the classroom. During the year the physiotherapist organized a special gym program which gave the children a chance to all work together in enhancing their specific motor skills - this is an encouraging approach that should be continued. Nancy Peterson (1982) concluded that if one expects the children to be interacting then integration must occur within the classroom environment. She concluded that there must be temporal integration, social integration and instructional integration. The latter will allow the "hadicapped child opportunities to observe, work with, and interact with nonhandicapped peers." p. 57.

7. If the program and school staff are interested in assessing the effectiveness of their program then a data management system consisting of standardized and nonstandardized, direct and indirect measures should be considered. This ongoing evaluation will assist the teachers in making

further improvements to their program.

8. The parents when interviewed gave suggestions on how they felt the teachers could improve their program. These have been listed in the Program Analysis section of this paper under the question "How can the teachers improve their program?"
9. For the most part the parents, teachers, and resource personnel in the community are very supportive and enthusiastic about the program. It appears that the programs assets are the skill of the teachers and the resources and services available at the school.

Research

1. Further investigation of the instruments is in order if research is to be conducted on this program. Consideration will have to be given to the amount of time the teachers, parents and children are willing to give to data collection.
2. A closer look at the interactions among the children in the program by video taping them in the classroom and playground; across different periods of the day; and with different play equipment would provide useful information on friendship patterns among the children.
3. If research is to be an integral part of the program then it has to be valued by all the staff. Perhaps some inservice for the staff on the importance of research and how they can get involved might make research seem less

threatening.

4. The school was definitely designed with research in mind. For a preschool it is one of the better designed and equipped in North America. However, for research to be an integral part of the facilty a researcher will have to be a member of the program staff.

In conclusion, unfortunately the plans for a main study to be conducted at the school have been postponed at this time. The main reason for this is that as a school for special needs children there is some uncertainty whether or not there will be funding to allow the nonhandicapped children to contrinue in the school. This uncertainty has made it difficult to plan for a two year research study on the integrated program.

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APPENDIX A

Letter to Parents

THE UNIVERSITY OF BRITISH COLUMBIA
2075 WESBROOK MALL
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FACULTY OF EDUCATION

January 15, 1981

Dear Parents:

I am interested in researching the issue of educating mentally handicapped children with their nonhandicapped peers. This educational placement, more commonly termed mainstreaming, involves the full integration of handicapped children into a classroom with non-handicapped peers. Thus, the main purpose of this study will be to investigate social interaction between handicapped and nonhandicapped students in an integrated classroom.

I am sure that, as parents and guardians, you are concerned with the possible effects this type of program may have upon your child. As an educator and researcher, I seek answers to the same questions. I have included a list of questions and answers dealing with integrating preschool handicapped children. I hope they will clarify the methods and objectives of the program as well as provide you with sufficient information with which to decide whether integration is an educational placement from which your child could benefit.

1. What might the benefits be to the preschooler educated in an integrated classroom?

Each child is unique, thus the benefits s/he will receive will be necessarily individual. However, preschool studies have investigated the importance of having children of varying developmental levels working together. It has been found that the nondelayed child gains patience with and understanding in her/his awareness of children with lower functioning levels. These children develop positive feelings toward the handicapped when given positive experiences with them. It has also been found that special instructional techniques used for educating delayed children benefit the nondelayed as well.

The delayed child, on the other hand, benefits from having positive models from which behaviours (ie. speech, motor, and cognitive) may be imitated. S/He also gains confidence as a member of society as opposed to being in a segregated minority.

2. What problems could arise from such an educational placement?

While the handicapped students may imitate the positive and even negative behaviours of his/her peers, one must realize that nonhandicapped children learn from imitating behaviour as well. While some studies have found that the nondelayed child imitates negative behaviours of his/her peers, other studies have found that nondelayed children have the ability to discriminate between positive and negative behaviours. Indeed they only develop and continue to imitate behaviours from peers if they elicit a reaction for doing so.

.../2

Also, it has been found that while mothers modify their language to suit the comprehension level of their child, it is possible that the child with greater language development will modify his/her language to suit the comprehension level of the delayed child. All children in this integrated class will have their language monitored, and the teachers will provide an enriched language environment from which all children will gain. In addition, the delayed child will continue to receive the special structured language time.

Finally, while the goal of this program is to integrate delayed and nondelayed children in order that they will interact socially in a positive manner, there is also a possibility that they will reject one another. This may give the delayed child feelings of inadequacy. The teachers are experienced in developing and using play activities that will encourage and strengthen positive interaction.

3. What will be the duration of the Study?

The study which will involve your child will be a pilot study beginning August 1981 and ending June 1982. To get adequate information from which decisions for the experimental study may be made, it is important that the children remain in the program for its duration. Thus, if there is a chance the family may be moving before the termination of the school year, it would be greatly appreciated if you did not apply for the enrollment of your child in the integrated program.

4. If a child is not benefitting from the program will s/he be withdrawn?

Like any program, it takes time to see results. The children will be assessed in August/September when they enter the program and again in May/June when the program is terminated. Their development and interactions will be observed throughout the year. If your child does not appear to be adjusting well to the program s/he will be withdrawn from the class following consultation with parents, teachers, and thae assessment team. It is important to realize that the purpose of this study is to monitor interactions and measure growth, not to manipulate behaviours.

5. What will the ratio of teacher to child and nondelayed to delayed children be?

There will be two full time teachers in the classroom with a minimum of 10 to a maximum of 12 enrolled students. This is a 1 to 5 or 1 to 6 ratio. Also, there are numerous volunteers, students, and professional people who will be involved in the children's daily routine.

There will be 4 delayed children selected for the program with 6 to 8 nondelayed boys and girls. It is hoped that both sexes will be equally represented.

6. How involved will each child have to be in the research aspect of the program?

Because the study deals with social interaction between preschoolers, it is important that they be spending optimal amounts of time together in the learning environment. Thus the least amount of time necessary for direct individualized assessment will be used. Hopefully, a maximum of 2½ hours in August/September and another 2½ hours in May/June will suffice. These assessments can be done

.../3

over 2 to 3 sessions. Also, the psychologist at Berwick Centre, Margaret Bryenton will have access to all assessments. Thus duplication of tests will not be required.

Indirect measures of collecting information on the children (ie. observations, teacher questionnaires, and parent questionnaires) will also be used in the study.

7. How much involvement will be required of parents/guardians?

To keep the amount of individual assessment done on each child to a minimum, more parent and teacher involvement will be required. The parents/guardians and teachers will be asked to complete an assessment package dealing with the child's motor development, behaviour and socialization. This checklist can be completed in one session and will be administered in October and repeated in May.

8. What measures will be taken to ensure confidentiality?

In any presentation of the pilot study, no first names, last names, or identifying information will be given. If video is used, it will be utilized only for analysis but not in any presentation

9. Will the parents/guardians have access to the results?

I will be more than willing to discuss assessment results privately with all parents/guardians. When the data is all collected and analyzed, a group meeting will be organized to discuss findings. Written copies will be made available to participating parents.

10. Will the children have the option of returning to the integrated class at Berwick Centre the following year?

Unfortunately, no. A new sample of children will be selected for the following year.

11. What will the educational alternative be for the children after the one year program is completed?

Assistance will be given by the Preschool Screening Committee in recommending another placement.

12. How will the children be selected for the program?

Criteria for selection of the 4 handicapped children.
The child must:

1. be 4 years of age as of September 1, 1981;
2. be functioning within the mentally delayed range;
3. display no severe maladaptive behaviours;
4. have the consent of the parents to attend an integrated class;
5. be planning to remain in the class for the duration of the school year;
6. have some receptive and expressive language, (example: vocalizes and/or gestures); and
7. be ambulatory (walks independently).

.../4

.../4

Criteria for selection of the 6 or 8 nonhandicapped children.
The child must:

1. be 3 years of age as of September 1, 1981;
2. have no major handicap;
3. display no severe maladaptive behaviours;
4. have the consent of the parents to attend an integrated class;
5. be planning to remain in the class for the duration of the school year;
6. have average or above receptive and expressive language.

In conclusion, I would like to stress that this study will in no way alter the classroom routine. Teacher contact with parents and students will not be affected, and parents/guardians will still be welcome to observe their child in the classroom. I will be available to address any concerns parents/guardians might have regarding this study at any thime during its duration. Also, I will be present at the February 4th, 1981 Parent meeting to answer any initial questions about the program.

Yours truly,

Joanne Gardner

JG:icv

APPENDIX B

Instruments

Behavior Observation Scale

7

Name: .... Date: ....
Time: ....

Child not interacting ....

Child interacting with:

Teacher: A .... Children: NHM1 .... NHF1....
B .... NMH2 .... NHF2....
Student: .... NHM3 .... HM1 ....
NHM4 .... HM2 ....
NHM5 .... HM3 ....
HF1 ....

Mark an X by the names of the children and/or teachers who were not present in the room doing the observation.

Play Level: unoccupied ...... associative ......
solitary ...... cooperative ......
onlooker ...... teacher directed ......
parallel ...... conversational ------

Quality of behavior:	Inappropriate	Antisocial	Social
Verbal (specify)	....	....	....
	....	....	....
Physical (specify	....	....	....
	....	....	....

Describe Play Activity:..
....

Sociometric

Name: .... Date: ....

Test .... or Retest ....

Response: 1 - 4

Point to the picture of the person you like to play with.

....

....

....

....

Response: 5 - 8

Point to the picture of the person you don't like to play with.

....

....

....

....

Response: 9 - 11

Do you like to play with this person?

....
....

....

Teacher Rankings

For each child circle the number that best references how accepted the child is by his/her classmates.

	Popular		Isolete		Not Popular
NHM1	5	4	3	2	1
NHM2	5	4	3	2	1
NHM3	5	4	3	2	1
NHM4	5	4	3	2	1
NHM5	5	4	3	2	1
WHF1	5	4	3	2	1
WHF2	5	4	3	2	1
HM1	5	4	3	2	1
HM2	5	4	3	2	1
HM3	5	4	3	2	1
HF1	5	4	3	2	1

Rating Instructions for the 73-Item Social Competence Scale

The rating instructions for the Social Competence Scale are presented below, together with a section for identifying information and a brief introduction to the scale. If a research plan calls for a number of teachers to complete the instrument, it is recommended that an introductory page that follows this or a similar format be included with each copy of the scale.

-/--/--

Child's Name ______________________ Rated by ________________________

Child's Age ______________________

Room or Group ______________________

___ Head teacher
___ Assistant teacher
___ Observer
___ Other

73-ITEM SOCIAL COMPETENCE SCALE

This scale is designed to measure the degree of competence with which a 3- to 6-year-old child masters various aspects of a full-day preschool program. The scale consists of 73 statements about a child's behavior. You are asked to rate each statement in terms of the frequency with which you have observed the behavior during the most recent week.

The ratings consist of seven categories of frequency ranging from "Never" to "Always." You are asked to circle the number (1, 2, 3, 4, 5, 6, or 7) that corresponds to the category which, in your judgment, is most descriptive of this child's behavior during the most recent week.

Please do not consult with anyone concerning your ratings. We are interested in responses that are based on your knowledge of and experience with the child. These records are being used as part of an independent research project and are strictly confidential.

RATING INSTRUCTIONS

1. Base your rating on the child's behavior during the most recent week. Consider only what the child did during that time period and try to disregard prior behavior and actions.
2. Consider each statement independently. It is well known that children may exhibit seemingly contradictory behavior.
3. Base your ratings on how you have observed the child functioning in the classroom.
4. Some items contain a number of specific behaviors that are only slightly different from each other. Do not hesitate to make a rating even though the child does not exhibit all of the specific behaviors.
5. Answer every item. Do not leave any blanks.
6. Do not hesitate to use the extreme points where appropriate.

KOHN SOCIAL COMPETENCE SCALE

	Never	Hardly ever	Seldom	Sometimes	Often	Very often	Always
1. Child can communicate his/her emotional needs to the teacher	1	2	3	4	5	6	7
2. Child seeks adult attention by crying	1	2	3	4	5	6	7
3. Child needs adult aid for each step of activity	1	2	3	4	5	6	7
4. Child is responsible in carrying out requests and directions	1	2	3	4	5	6	7
5. Child seeks physical contact with teacher	1	2	3	4	5	6	7
6. Child adds freely (verbally or non-verbally) to teacher's suggestions	1	2	3	4	5	6	7
7. Child expresses open defiance against authority	1	2	3	4	5	6	7
8. Child shies away and withdraws when approached by other children	1	2	3	4	5	6	7
9. Child responds with immediate compliance to teacher's direction	1	2	3	4	5	6	7
10. Child can be independent of adult in having ideas about or planning activities	1	2	3	4	5	6	7
11. Child frowns, shrugs shoulders, pouts, or stamps foot when suggestion is made by teacher	1	2	3	4	5	6	7
12. Child can be independent of adult in overcoming difficulties with other children or activities	1	2	3	4	5	6	7
13. Child needs excessive praise and encouragement from teacher in order to participate in activities	1	2	3	4	5	6	7
14. Other children seem unwilling to play with this child	1	2	3	4	5	6	7
15. Child is unwilling to carry out reasonable suggestions from teacher even when having difficulty	1	2	3	4	5	6	7

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KOHN SOCIAL COMPETENCE SCALE (cont.)

	Never	Hardly ever	Seldom	Some-times	Often	Very often	Always
16. Child feels comfortable enough with other children to be able to express his/her own desires or opinions	1	2	3	4	5	6	7
17. Child hits teacher	1	2	3	4	5	6	7
18. Child is fearful in approaching other children	1	2	3	4	5	6	7
19. Child can accept teacher's ideas and suggestions for play or ways of playing	1	2	3	4	5	6	7
20. Child gets willing cooperation from most other children	1	2	3	4	5	6	7
21. Child needs teacher's attention at naptime	1	2	3	4	5	6	7
22. Child gives the appearance of complying with teacher's suggestions, but does not do suggested activity	1	2	3	4	5	6	7
23. Child is bossed and dominated by other children	1	2	3	4	5	6	7
24. Child's ideas have impact on many children in the classroom	1	2	3	4	5	6	7
25. Child rebels physically, for example: has temper tantrums, hits, kicks, etc.	1	2	3	4	5	6	7
26. Child easily gets attention of other children	1	2	3	4	5	6	7
27. Child needs special attention at lunch or snack time	1	2	3	4	5	6	7
28. Child has difficulty defending his/her own rights with other children	1	2	3	4	5	6	7
29. Child cooperates with rules and regulations	1	2	3	4	5	6	7
30. Child dawdles when required to do something	1	2	3	4	5	6	7

KOHN SOCIAL COMPETENCE SCALE (cont.)

	Never	Hardly ever	Seldom	Some-times	Often	Very often	Always
31. In play with other children, child can shift between leading and following, depending on the situation	1	2	3	4	5	6	7
32. Child reacts negatively to teacher's ideas and suggestions for play activities	1	2	3	4	5	6	7
33. Child is unable to occupy himself/herself without other children directing activities for him/her	1	2	3	4	5	6	7
34. Child is willing to turn to other children for help and assistance	1	2	3	4	5	6	7
35. Child actively defies teacher's rules and regulations	1	2	3	4	5	6	7
36. Child can give ideas to other children as well as go along with their ideas	1	2	3	4	5	6	7
37. When making a change from one activity to another, child resists entering the new activity	1	2	3	4	5	6	7
38. Child appears at a loss in unstructured free play types of activities	1	2	3	4	5	6	7
39. Child easily makes the change from one activity to the next	1	2	3	4	5	6	7
40. Child seems to enjoy both play with others and by himself/herself	1	2	3	4	5	6	7
41. Child is hostile or aggressive with other children, for instance: pushes, taunts, bullies, etc.	1	2	3	4	5	6	7
42. Other children copy this child's ideas for play	1	2	3	4	5	6	7
43. Child has to be a leader in order to participate in activities with other children	1	2	3	4	5	6	7
44. Child participates in a half-hearted way	1	2	3	4	5	6	7
45. Child is a picky eater	1	2	3	4	5	6	7

KOHN SOCIAL COMPETENCE SCALE (cont.)

	Never	Hardly ever	Seldom	Some-times	Often	Very often	Always
46. Child takes possession of other children's equipment without their permission	1	2	3	4	5	6	7
47. Child demonstrates little interest in things and activities	1	2	3	4	5	6	7
48. Child is open to the ideas and suggestions of other children	1	2	3	4	5	6	7
49. Child is responsible in following through on routines, for example: getting dressed or undressed, washing hands, etc.	1	2	3	4	5	6	7
50. Child is quarrelsome	1	2	3	4	5	6	7
51. Child seems eager to try new things	1	2	3	4	5	6	7
52. Child is dominating and bossy with other children	1	2	3	4	5	6	7
53. Child spends time sitting around, looking around, or wandering around aimlessly	1	2	3	4	5	6	7
54. Child can remain alert and interested in an activity	1	2	3	4	5	6	7
55. Child prevents other children from carrying out routines	1	2	3	4	5	6	7
56. Child succeeds in getting others interested in what he/she is doing	1	2	3	4	5	6	7
57. Child has difficulty resting during naptime	1	2	3	4	5	6	7
58. Child shows interest in only a few types of things	1	2	3	4	5	6	7
59. Child puts things away carefully	1	2	3	4	5	6	7
60. Child is unwilling to play with other children except on his/her own terms	1	2	3	4	5	6	7
61. Child responds well when the activity is planned or directed by the teacher	1	2	3	4	5	6	7

KOHN SOCIAL COMPETENCE SCALE (cont.)

	Never	Hardly ever	Seldom	Sometimes	Often	Very often	Always
62. Child disrupts activities of others	1	2	3	4	5	6	7
63. Child easily loses interest and flits from one activity to another	1	2	3	4	5	6	7
64. Child can participate actively in structured activities as well as free play type of activities	1	2	3	4	5	6	7
65. Child has difficulty leaving school at end of day	1	2	3	4	5	6	7
66. Child has difficulty falling asleep during naptime	1	2	3	4	5	6	7
67. Child easily gives up when confronted with a difficulty	1	2	3	4	5	6	7
68. Child shows enthusiasm about work or play	1	2	3	4	5	6	7
69. Child has trouble keeping to the rules of the game	1	2	3	4	5	6	7
70. Child cries during naptime	1	2	3	4	5	6	7
71. Child seems to be at a loss when first coming into the classroom	1	2	3	4	5	6	7
72. Child acts silly at lunch table, for example: giggles, throws food, shrieks, etc.	1	2	3	4	5	6	7
73. Child resists going along with the ideas of other children	1	2	3	4	5	6	7

Pupil Rating Form

Pupil's Name ______________________
Number ______
Teacher's Name ______________________

	Behaviour		Rating Scale					
1.	orderliness	orderly	1	2	3	4	5	careless
2.	confidence	insecure	1	2	3	4	5	confident
3.	loquaciousness	silent	1	2	3	4	5	talkative
4.	leadership	leader	1	2	3	4	5	follower
5.	cooperation	compliant	1	2	3	4	5	negativistic
6.	activity level	low	1	2	3	4	5	high
7.	attention	distractible	1	2	3	4	5	attentive
8.	mood	somber	1	2	3	4	5	cheerful
9.	group participation	little	1	2	3	4	5	much
10.	self assertion	assertive	1	2	3	4	5	passive
11.	considerable	considerate	1	2	3	4	5	egocentric
12.	inhibition	inhibited	1	2	3	4	5	uninhibited
13.	achievement	achieving	1	2	3	4	5	underachieving
14.	tension	nervous	1	2	3	4	5	calm
15.	popularity	popular	1	2	3	4	5	unpopular
16.	independence	dependent	1	2	3	4	5	independent
17.	disposition	pleasant	1	2	3	4	5	unpleasant
18.	presentation	exhibitionistic	1	2	3	4	5	modest
19.	work habits	organized	1	2	3	4	5	disorganized
20.	maturity	immature	1	2	3	4	5	mature
21.	sociability	extraverted	1	2	3	4	5	introverted
22.	conduct	misbehaved	1	2	3	4	5	well behaved
23.	effort	unmotivated	1	2	3	4	5	motivated
24.	emotional control	controlled	1	2	3	4	5	emotional
25.	reliability	dependable	1	2	3	4	5	undependable
26.	aggression	aggressive	1	2	3	4	5	peaceful
27.	adjustment	well adjusted	1	2	3	4	5	maladjusted
28.	impulsivity	impulsive	1	2	3	4	5	deliberate

Rating Instructions for the Problem Checklist

The rating instructions for the Problem Checklist are presented below, together with a section for identifying information and a brief introduction to the scale. If a research plan calls for a number of teachers to administer the scale, it is recommended that an introductory page that follows this or a similar format be included with each copy of the instrument.

-/--/--

CHILD'S NAME ______________________ RATED BY ______________________

CHILD'S AGE ______________________

ROOM OR GROUP ______________________

___ head teacher
___ assistant teacher
___ observer
___ other

PROBLEM CHECKLIST

THIS SCALE, DESIGNED FOR CHILDREN 3 TO 6 YEARS OLD, IS AN INVENTORY OF CLINICALLY SIGNIFICANT BEHAVIORS THAT ARE READILY OBSERVABLE IN THE PRESCHOOL OR KINDERGARTEN SETTING. THE PROBLEM CHECKLIST CONSISTS OF 49 ITEMS. YOU ARE ASKED TO RATE EACH ITEM IN TERMS OF HOW WELL IT DESCRIBES THE BEHAVIOR OF THIS CHILD : DURING THE MOST RECENT WEEK.

THE RATINGS CONSIST OF 3 CATEGORIES: "NOT AT ALL TYPICAL," "SOMEWHAT TYPICAL," AND "VERY TYPICAL." YOU ARE ASKED TO CIRCLE THE NUMBER (EITHER 0, 1, OR 2) THAT IN YOUR JUDGMENT MOST APPROPRIATELY DESCRIBES THIS CHILD'S BEHAVIOR DURING THE MOST RECENT WEEK.

PLEASE DO NOT CONSULT WITH ANYONE CONCERNING YOUR RATINGS. WE ARE INTERESTED IN RESPONSES THAT ARE BASED ON YOUR KNOWLEDGE OF AND EXPERIENCE WITH THIS CHILD.

THESE RECORDS ARE BEING USED AS PART OF AN INDEPENDENT RESEARCH PROJECT AND ARE STRICTLY CONFIDENTIAL.

RATING INSTRUCTIONS

1. BASE YOUR RATING ON THE CHILD'S BEHAVIOR DURING THE MOST RECENT WEEK. CONSIDER ONLY WHAT THE CHILD DID DURING THAT TIME PERIOD AND TRY TO DISREGARD PRIOR BEHAVIOR AND ACTIONS.
2. CONSIDER EACH QUESTION INDEPENDENTLY. IT IS WELL KNOWN THAT CHILDREN MAY EXHIBIT SEEMINGLY CONTRADICTORY BEHAVIOR.
3. BASE YOUR RATINGS ON HOW YOU HAVE OBSERVED THE CHILD FUNCTIONING IN THE CLASSROOM.
4. SOME ITEMS CONTAIN A NUMBER OF SPECIFIC BEHAVIORS THAT ARE ONLY SLIGHTLY DIFFERENT FROM EACH OTHER. DO NOT HESITATE TO MAKE A RATING EVEN THOUGH THE CHILD DOES NOT EXHIBIT ALL OF THE SPECIFIC BEHAVIORS.
5. ANSWER EVERY ITEM. DO NOT LEAVE ANY BLANKS.
6. DO NOT HESITATE TO USE THE EXTREME POINTS WHERE APPROPRIATE.

KOHN PROBLEM CHECKLIST

	Not at all Typical	Somewhat Typical	Very Typical
1. Body appears stiff and rigid when standing, sitting, lying down, or being held	0	1	2
2. Eats, sucks, or drinks inedible substances such as plaster, ink, sand, cloth, wood, toys, etc.	0	1	2
3. Is restless and unable to sit still	0	1	2
4. Has mournful, downcast expression: seems sad	0	1	2
5. Has temper tantrums (e.g., screaming, kicking, stomping, holding breath, etc.)	0	1	2
6. Seldom smiles	0	1	2
7. Is listless or apathetic	0	1	2
8. Screams or bangs objects, etc., when angry, irritated or frustrated	0	1	2
9. Moves head or body in a very slow way	0	1	2
10. Gets easily irritated or bothered by things or by people	0	1	2
11. Is tense or jittery in everyday situations or activities	0	1	2
12. Hardly speaks at all	0	1	2
13. Gets angry when interrupted at play by adults as part of normal routine (not punishment)	0	1	2
14. Speaks in a faint or weak voice (not due to known physical causes)	0	1	2
15. Is shy or bashful with most adults	0	1	2
16. Appears jealous when teacher pays attention to other children	0	1	2
17. Acts overly fearful and cautious	0	1	2
18. Often starts fights with other children	0	1	2
19. When working with materials, becomes bothered or upset when he/she cannot make things "just right" or put them in perfect order	0	1	2

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KOHN PROBLEM CHECKLIST (cont.)

	Not at all Typical	Somewhat Typical	Very Typical
20. Acts extremely frightened to the point of screaming and crying (disregard where child screams or cries out of anger)	0	1	2
21. Says he/she is going to kill himself/herself	0	1	2
22. Is self-conscious	0	1	2
23. Is preoccupied and in a world of his/her own to the point of being unresponsive to things or to people	0	1	2
24. Talks about death and killing	0	1	2
25. Does not defend himself/herself when others shove, hit, accuse, or criticize him/her	0	1	2
26. Disobeys directions or instructions of adult	0	1	2
27. Is unresponsive to friendly overtures by adults or children	0	1	2
28. Stays close or clings to mother or adult	0	1	2
29. Seeks attention through rowdy or "show-off" behavior	0	1	2
30. Is shy or bashful with most children	0	1	2
31. Behaves like a little adult, for instance: does not seem to have fun, acts in a restrained manner	0	1	2
32. Bullies, hits, or picks on other children	0	1	2
33. Has an aloof and distant manner	0	1	2
34. Gives excuses for not following classroom procedures or rules of the game	0	1	2
35. Is extremely active; has always to be "on the go"	0	1	2
36. Is overly sensitive; feelings easily hurt	0	1	2
37. Hurts others, tells untruths, or destroys property without seeming to feel badly	0	1	2
38. Is very much a follower; does not initiate play with other children	0	1	2

KOHN PROBLEM CHECKLIST (cont.)

	Not at all Typical	Somewhat Typical	Very Typical
39. Occupies himself/herself continuously with one type of activity and resists leaving it to do anything else	0	1	2
40. "Talks back" to adults in a defiant and fresh manner	0	1	2
41. Exhibits drowsiness throughout the day	0	1	2
42. Swears or curses, using "hell," "damn," or other four-letter words	0	1	2
43. Is destructive in regard to own and/or others' property	0	1	2
44. Requires urging to take part in activities	0	1	2
45. Deliberately maltreats other children	0	1	2
46. Fails to play with most other children	0	1	2
47. Stares blankly into space without appearing to be looking at or thinking about anything	0	1	2
48. Is easily aroused to anger	0	1	2
49. Appears bewildered or confused	0	1	2

PARENT INTERVIEW - PREASSESSMENT

MEDICAL HISTORY

1. Were there any complications in the prenatal stage? If yes, explain.
2. Was your child full term or premature?
3. If premature, how many weeks?
4. What was your child's weight at birth?
5. Did you have a normal , caesarian, or breech delivery?
6. Has your child had any of the following illnesses?

    Meningitis .....
    Mumps ....
    Measles ....
    Whooping Cough ....
    Chicken Pox ....
    Scarlet Fever ....
    High Temperature ....
    Other (Name) ....

7. Is the child frequently troubled by any of the following?

    Colds ....
    Sore Throat ....
    Earache ....
    Other (specify) ....

8. Has your child ever had surgery? Please explain.
9. Has your child ever had any accidents? Please explain.

FAMILY AND SOCIAL HISTORY

1. Is a language other than english spoken in the home? .....
Which one? ....
2. Which language is spoken most frequently in the home? ....
3. Father's occupation ....
Highest grade completed in school ....
4. Mother's occupation ....
Highest grade completed in school ....
5. Has the child attended preschool before? ..... Age started? .....
6. Please name your children, their ages and sex.

Name	Age	Sex

7. Has there been any unusual circumstances in the child's life?
Please state: ....
....
8. Please list your child's playmates along with their age and sex.

Name	Age	Sex

QUESTIONS REGARDING THE PROGRAM

1. How did you hear about the Integrated Program?

2. What are the reasons you decided to place your child at Berwich School?

3. How are you expecting your child to benefit from the integrated program?

4. Did you have any reservations about the integrated program?

5. Now that your child has been in the integrated program for a couple of months, what are your feelings regarding this program?

6. Have you noticed any changes in your child?
   Positive:

   Negative:

7. Does s/he discuss school at home? .... If yes, give examples.

8. Is s/he eager to go to school in the morning?

9. are there any changes you would suggest that would make the

program more beneficial for your child and for the other children?

PARENT INTERVIEW: POSTASSESSMENT

1. How did you hear about the integrated program at Berwick?

2. Did you investigate other programs for your child's placement? If so, which one(s)?

3. What are the reason(s) you decided to place your child in the integrated program at Berwick?

4. Do you feel your child has benefited from the program?

   If so, what are the benefits?

   probe - language
   - motor skills
   - social skills
   - play skills
   - behavior

5. Did you have any reservation about placing your child in the integrated program?
   If so, please discuss.

6. Can you think of any "negative" changes your child underwent during this last year?

If so, which of these might be attributed to the program?

probe - language
- motor
- social
- play
- behavior

7. Would you place your child in an integrative setting again?

8. Would you place your other children in an integrative setting?

9. Would you recommend the integrated program to your friends?

10. Has your child ever discussed or questioned the different handicaps of the children in the school?
probe for examples:

11. Do you feel your child is more accepting of handicapped people because of being in this integrated program?
Probe for examples:

12. Have your views toward the handicapped changed at all over the last years?
Probe for examples:

13. Did you have an opportunity to observe your child in the classroom?

If so, how often?

When was the last time you observed him/her?

The following questions deal with the specific classroom activities and routines. Your input and suggestions will help the teachers and director improve the program for next year and the following years. Your anonymity will be protected.

14. What skills or abilities were you hoping your child would develop over the last year?

probe: Play
language
social
motor
behavior

15. How well did the classroom program contribute to the development of these skills and abilities in your child?
Examples:

16. What would you recommend the teachers do to enhance the development of these skills/abilities in your child?

17. Do you feel the 9am to 2pm Monday through Friday program time was:
too long ....
too short .... or

adequate .... for your child.
Please elaborate.

18. Do you feel that all the children in the program were accurately placed?
Examples:

19 Are you satisfied with the relationship the teachers had with your child?
Please elaborate:

20 Compared to the other programs in the community, do you feel the tuition fee for this program was:
too little .... adequate .... too much ....
What would be an acceptable fee? ....

21. How far away does your child live from the school?

22. How does your child come to school each day?

23. If you were not within walking distance from the school would you be willing to drive or bus your child to school each day?

24. What recommendations would you give to improve the classroom routine?
Probe: more free time
more structure

more skill activities
different activities
more activities to integrate
children

25. Do you feel the ratio of special needs to non special needs (4 to 7) was adequate?
Please elaborate.

26. Do you feel the ratio of 2 teachers to 11 students was adequate?
Please elaborate.

27. Do you feel the teachers should be actively encouraging the children to interact?

28. What did the teachers do to enhance the interaction among the children?

29. What further activities would you recommend the teachers do to encourage interaction among the children?

30. Did your child have any problems adjusting to the school routine?
If yes, what do you think were the reasons?
If yes, how long did it take for your child to adjust?

31. How often did your child say she/he didn't want to go to school?

32. What other concerns did you have about the program?

33. What other recommendations could you give the teachers so they can improve their program?

34. Being the children will be a year older next year what should the teachers focus on next year?

TEACHER INTERVIEW

1. What was your general goal for the program?

2. What were your specific objectives (goals) for each child?

3. How successful were you in achieving your goals?

4. What is your focus for next year?

5. What were the benefits of the program?

   probe: language
   motor
   social
   play skills
   behavior

6. Did any of the children express negative behaviors?
   What?

7. Could any of these negative behaviors be attributed to the program?

8. Did any of the children refuse to come to school?
   Explain.

9. Did any of the children have problems adjusting to the

classroom routine?
Explain.

10. How successful do you feel the teacher to child ratio was?

11. How successful do you feel the ratio of handicapped to nonhandicapped children was?

12. How has the classroom routine changed over the year?

13. If it has, what brought about this change?

14. What are your feelings about the length of the program day?

15. Were any of the children placed inappropriately?

16. Are you aware of any other programs in the community that are similar to your program?
If so, have you observed any?
What is your impression of these programs?

17. Did any of the children ever discuss the various disabilities of the other children in the school?

18. Did you ever discuss the various disabilities of the children in the school?
Explain.

19. Did you encourage and direct the children to interact?

20. What activities did you incorporate into your program that were effective in encouraging interaction?

21. What are your impressions of the integration of services in the school?

22. How do you feel about research being conducted in your classroom?